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EDUCATION AT THE PARIS EXPOSITION

PROFESSIONAL OPPORTUNITIES IN A JUROR'S WORK

ONE of the prominent French jurors in comparing the school system of France with the United States expressed the regret that our high schools in certain particulars ranked with their primary schools. The misconception arose from the French assumption that their primary schools are the equivalent of our high schools and that their colleges are the coördinates of ours. The discussions that arose in the jury, and the misconception of the foreign school systems early led to my graphically representing four great systems, which were used in the discussions of our work. These rough sketches thoroughly revised will be reproduced from advanced sheets of *Professional Education in Foreign Countries*. Before instituting a comparison between these systems and their exemplification at the Exposition a sketch based on official information and confirmed by personal inspection of the French school system, the basis of the classification of education at the Exposition, is necessary.

The city of Paris afforded a most excellent opportunity for supplementing the study of the educational exhibits from France. For nearly three months the active work on the jury of class and group was alternated almost daily by inspection of the French school system, beginning with the lowest class of the

école maternelle and terminating with the highest of the Sorbonne. A previous experience in which my letters of introduction disappeared never to be heard from taught me how to secure the fullest aud freest facilities and courtesies, both from the heads of the central administrative departments and from the executive heads of the local institutions. The time necessary to secure these facilities may interest others who contemplate making such inspections.

On May 23 I wrote the director to fix by appointment a date when my credentials might be submitted. The answer was dated May 25, and an appointment made for May 28. On May 30 authority was granted to inspect the superior and secondary schools of the city and permission requested from the director of agriculture and veterinary schools, as well as the director of the primary schools of Paris. From the former, authority was received June 6 and from the latter on June 13. On June 19 permission to assist at an examination to be held June 21 was received. But this long delay of nearly a month was more than offset by the opportunities afforded. For at sight these letters of authority invariably opened to the freest inspection and furnished the fullest information. A good illustration of their kindly forethought is furnished in my experience at the Secondary Normal School for Girls at Sèvres. I had casually mentioned to one of my colleagues that I contemplated visiting that institution on a certain day and hour, should I return from the seashore in time, but I was so little certain of my return that I deemed it unwise to make an appointment with the directress. Having returned in time, I visited the school as planned. I was surprised to find the directress at leisure and I enjoyed a thorough tour of the entire building under her guidance. About two weeks later, a letter that had gone astray in the mail informed me that this colleague had written the directress of my purpose to be present and expressed the hope that I would find it an excellent opportunity to inspect the school under the guidance of the directress herself.

Mothers' Schools (*École maternelle*).—The time limit in the école maternelle by rule is from two to six years, but pupils

entering at the minimum two years are becoming less and less as the crèches carry the children to the third year. Again, more and more of these schools possessing three, four and even six classes are carrying the children forward to the seventh and into virtually the first year of the primary course. The character of instruction more closely resembles that of our primary schools than of our kindergarten. Most of the pupils are from the working classes, and children of the middle and upper classes are seldom found in these schools. Instruction and material are entirely free, and on request pupils are retained in the school till called for, in order to keep them off the streets. The following description of a teacher's day in a mother's school will afford a good view from the French teacher's standpoint.

After the opening of school, at 8 o'clock in winter and 7 o'clock in summer, the children arrive, accompanied by some member of the family, an older sister or brother that attends the school near by, or the mother.

The teacher in attendance receives them, sees that the lunch baskets of the children who eat at the school are put in their customary place; and the little world forthwith assumes its place on the benches of the recreation hall, an inclosed and covered yard. Till 9 o'clock, the regular school hour, the teacher keeps the children busy either in singing or gymnastic exercises. Note that the school is coeducational and that the sexes are not separated in class, in the yard, or in recreation.

At 9 o'clock all the teachers arrive. Each takes her class, conducts the children to their room, and proceeds to the inspection for neatness. She examines their hands, their handkerchiefs, their clothing. Criticising some and rewarding others for their neatness she promises to be generous tomorrow to those who present a good appearance.

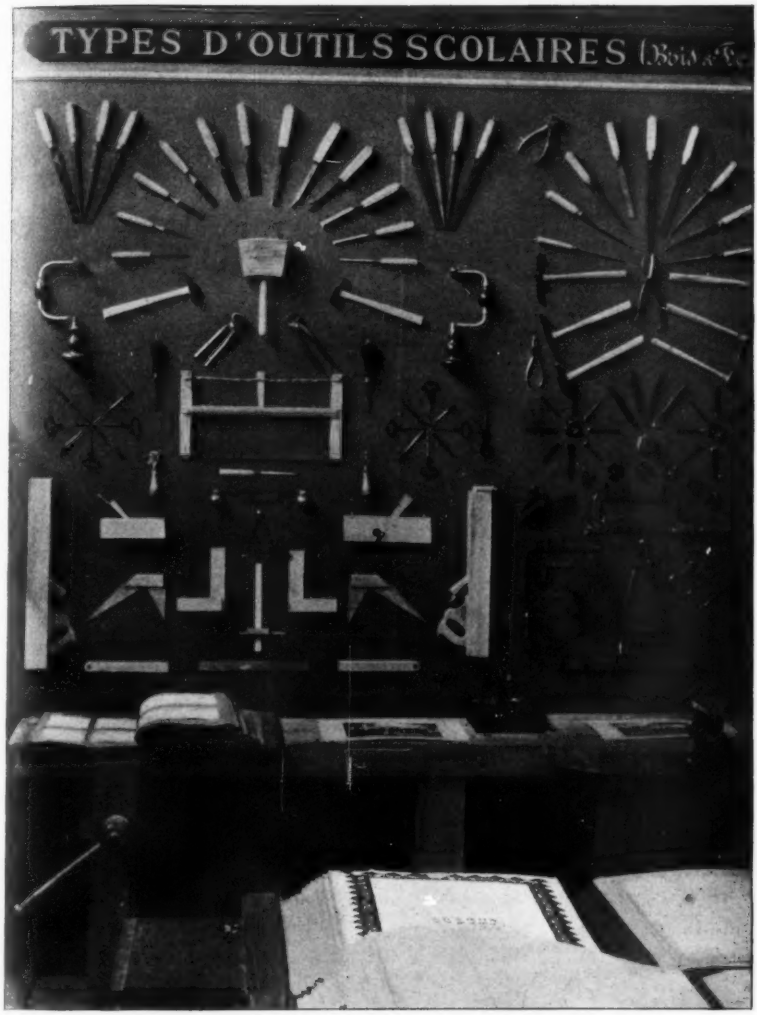
The class sings as it passes and when every one is seated school begins. According to time, and following the order of the program, twenty minutes are devoted to reading, five minutes to singing, twenty minutes to writing and ten minutes to language exercises.

Reading is done by the aid of movable letters, of letters or

syllables written on the blackboard one after another by the teacher in conjunction with phonetic signs. At quarter past ten there is a half hour's recess when the children play freely but under supervision. When school is resumed, the roll is called and the class has its little lessons in history, geography, or object lessons. At 11:15 the teacher appointed for the duty leads to the yard the children of all the classes that dine at the school. Behind them come the children that alone or attended are going to dine at home. These are conducted in line by a teacher to the gate where they await their attendants. The teacher assisted by the waiting-maid places the children at the tables and distributes to them their lunches. The poor children receive a free portion, soup and vegetables, sometimes soup, vegetables, and meat; the others pay two cents. During the meal which ends at 12:15 the teacher and waiting-maid do not cease to require good manners and even interrupt the lunch to make important criticisms. The play time is free and the teacher that was on duty has been replaced by another. The superintendence consists generally in preventing dangerous games, but a teacher that really understands her work directs the games, takes part in them and interests herself in all the little children who have so much need of good counsel and kind words.

At 1 o'clock, the children are taken to the wash-room. They sing as they pass to class and then come the ordinary school exercises; reading, numbers, interrupted by recitation or singing. These various exercises are continued till 2:30, when they have half an hour for recess. Twice a week after recreation each class practices gymnastics; very simple movements of the arms and legs, rounds and games. Then comes work in manual training or drawing consisting of folding, weaving, cutting out and stitching. Drawing is done in a copybook or with splints. At 4 o'clock the children that go home alone are taken to the gate and the rest await their parents. The school closes at 6 o'clock in winter and 7 in summer.

On leaving the school at six years of age, nearly all the children can read fluently, write legibly, add, subtract, and multiply very simple problems. In districts remote from large cities, the



TYPES OF TOOLS FOR MANUAL TRAINING, WOOD AND IRON
French Primary Schools, Elementary

children are poorly clothed but in general are quite neat. Monday rarely sees a child with a soiled apron. Their education often leaves much to be desired; the little being uses coarse words to express himself, and strikes his companions that contradict him, but he quickly loses these bad habits. All these poor little children who have such great need of affection, as do all children of their age, become so attached to their teachers that they are very happy when they receive a caress from her and are severely punished when they are deprived of it. So it is very easy to govern them.

The parents, with very rare exceptions are always refined and polite to the teachers and when the opportunity occurs they give evidence of their gratitude for the care given their children.

Elementary primary schools.— A problem arose about the close of our first month's residence in Paris as to what to do with "the boy" who was tired of sightseeing and could give little attention to lessons in French. As it would afford a good opportunity to compare primary schools we determined to secure his admission to the grade corresponding with his grade at home. The director of the nearest boys' schobl had no authority to admit him and recommended that an application be made to the director of primary education of Paris. He informed me that no rule applied and that in the absence of rule if the director of the school would admit him no objection would be made. He was admitted to the same grade as the director's son who was of the same age, and he spent nearly a month in attendance on the school. This gave me an opportunity of seeing the school's work under advantageous conditions.

The primary elementary schools are opened to children of school age, that is to say, from six to thirteen years. There are three classes of these schools, the mixed, common to children of both sexes, the special for boys and the special for girls. As enunciated by the authorities the principal aim of the primary school is to transform the child into a man, but he must be equally prepared so far as possible for the life and condition that he is to attain. For this second reason, manual training and drawing play important parts and contribute to develop the

spirit of observation and the training of the eye and hand. The thirty class hours a week are so distributed that French is taught daily in different exercises at least two hours; scientific instruction from one to one and a half hours; history, geography, and civics about one hour; penmanship one hour in the lower years gradually reduced in the upper; drawing two or three weekly lessons; singing one or two weekly; gymnastics at least one lesson every other day; manual training two or three hours a week. The completion of the compulsory period is determined by an examination which leads to a certificate. Admission to the examination for the primary elementary certificate is opened to candidates who are eleven years old at the end of the scholastic year. The tests of the examination are of two classes, written and oral, which are under the control of a commission and the written secures admission to the oral which comes later. On securing a certificate a pupil is released from compulsory attendance on school, and while many pupils complete the course in less than six years, many also secure the elementary certificate before their thirteenth year. The inspection of the children in the playground, examination of their hands, heads, ears, necks, and clothing by the several teachers is interesting. Entering the building in double lines they stand in the assembly room to listen to remarks on good behavior by the director. They mount the stairs to their rooms in good order, each class or year in charge of a teacher; two women and six men for eight divisions. Class work proceeds on the whole like the corresponding grade in our own schools. A sixth class (lowest) was small but in charge of a good teacher, a woman. Pupils were reading well for the age, but nothing remarkable, and copybooks were good. But the surroundings and the schoolrooms are grimy and order is frequently obtained by whacking on the desk with a stick. Pupils and teacher arise as one enters the room and the pupils sit quietly while teacher and director confer.

In the upper grades the same order maintains, and the teacher's whacks resound again and again. All books, pens, and materials are furnished by the city, and no tuition is charged the pupils. In these schools some pupils prepare for competitive

examination for admission to the lycées, a number of scholarships being accessible to the pupils of the primary school. Directors do not examine their own papers, but are under the necessity of examining those of other schools. None are admitted to the examinations other than inspectors, but my letter of authority opened a door to a full examination by making me an assistant in examination.

An inspection of the boys' and girls' primary showed the same character of work and surroundings. The rooms were provided with single and double desks and seats, little attention being given to form or comfort. The director said that when one room was inspected all were known, and that the seats and desks were of the latest patterns. He called attention to the latest model of a seat, where the first slat was cut in two and hinged so that either individual could rise at less inconvenience. There was no attempt to adjust the seat or desk to the individual use save that the higher were in the rear of the room. A reference to the accompanying cut more plainly reveals the contrast between a model French primary room and those so common in America. There was no attempt at color, flowers, or decoration in the room. Blackboards were scant, but other helps abounded.

As the examinations for the elementary certificate most nearly approximate an examination in one of our own schools, both in methods and purposes, an outline of the subjects required, the time given to the tests, and the maximum mark for each, are given. The examination, based on the middle course-completion, tenth year of age, comprised:

1. A dictation exercise for spelling of fifteen lines or more. The final point of each phrase as it was to be read was indicated. The written page of the pupil also served for the test in writing.

2. Two questions in arithmetic bearing on the application of numbers and on the metric system, with the steps in their solution.

3. A simple revision following a choice made by an inspector of one of three classes of subjects, either (*a*) moral or civic instruction, (*b*) history and geography, (*c*) elementary notions of science and their application.

4. This item is divided, and becomes for boys in rural schools a test of several questions chosen from the instruction given in agriculture, middle course; and for boys in the city a very simple exercise in linear drawing or ornament from the middle course. For the young girls it is work in common sewing under the superintendence of a mistress designated for this

A MODEL ROOM IN A PRIMARY SCHOOL IN FRANCE

purpose. The time given to the spelling depended on the rate of pronunciation, which is quite moderate, and 10 points each are assigned as a maximum to the spelling and reading tests. The arithmetic, revision, sewing, or drawing tests are given an hour each and 10 points each as a maximum. The maximum number of points for the eight items is 80, and boys are admitted to the oral that obtain 20 points, and girls that obtain 25. The oral points are added to the written, and 35 of the 80 points are necessary to receive a certificate.

The pupils from the various schools, accompanied by their teacher, assemble in the courtyard. An assistant from the prefecture prepares for the entrance of the pupils by distributing

paper and blanks for their use. Numbers had been sent to the various schools, and were so distributed that pupils of the same school should not occupy adjacent seats. The rows of seats provided for three pupils each, and were designated a, b, c, d, respectively, the files extending the length of the room and furnishing seats for 240 pupils; the pupils entered from the court-yard as their numbers were called, just as to an omnibus. They began entering about 7:40, and were all seated before 8 o'clock. The question papers were retained by the inspector in their original sealed package and were opened in the presence of his deputies. A representative of the parents and of the mayor was present. The revision of the answer papers was committed to the inspector's deputies under the inspector's supervision, and others were in attendance to help. In the rear of the room, as the examination progressed, were a number of pupils correcting their work from their neighbors' papers, but it would have been almost impossible to prevent this with the numbers present in the limited quarters had the supervising force been greatly augmented.

The following set of question papers was used June 21, 1900. The notes and points of the spelling paper were given by the inspector in charge:

Superior primary and technical schools.—The growth of the superior primary schools is a distinguishing characteristic of the period under revision (1889–1900), and many have the mistaken notion that they are the equivalent of American high schools. They must be distinguished from the complementary courses of the elementary primary schools. Their course of study must be at least two years, and the full course comprises three or more; the complementary course is of one year's length, and includes at most two divisions, however many pupils there may be. Their material equipment must comprise at least as many distinct rooms as there are years of study, a drawing room, a gymnasium, and a workshop, while the complementary course is maintained as a distinct class with a workshop only required. Their superintendents and professors must hold the professors' certificate for superior primary schools, while the superintendent of the

Elementary primary schools, Paris, June 1900

Question papers to be answered in writing

Arithmétique.

1° Je veux tapisser moi-même un cabinet qui a 2m 80 de longueur, 1m 40 de largeur et 3m 25 de hauteur. Il existe tout autour une boiserie haute de 1m 20. Le papier que j'emploie a 0m 60 de largeur. Quelle longueur m'en faudra-t-il?

2° On achète 345f une obligation qui rapporte 15f d'intérêt annuel. L'impôt et les frais prélèvent le 1/6 de cet intérêt. Calculer le taux du placement.

Rédaction.

Différentes manières de voyager.—Autrefois—Aujourd'hui—Faites quelques reflexions personnelles.

Orthographe (and penmanship)

Le Bavardage, O. Gréard.

(The underscored words with insertions and marginal notes give typical mistakes and markings aggregating 5 of the 10 points and passing the paper.)

2 Parmi les maladies de l'âme, les unes sont dangereuses, les autres odieuses, les autres ridicules; le bavardage est à la fois ridicule, odieux et dangereux. Ridicule, car on se moque des grands ½ parleurs; odieux, car on l'aime pas les porteurs de mauvaises ½ nouvelles, dangereux, car ceux qui révèlent leurs propres secrets ou celui des autres s'exposent aux plus terribles mésaventures. ½ Il faut donc combattre le bavardage doucement, mais incessamment, ½ en se raisonnant d'abord, puis, par l'habitude, en s'accoutumant ½ à ne pas se presser de répondre avant tout le monde, et à ne pas répondre à la place d'un autre; à se surveiller sur les sujets où l'on est, par métiers, tentés de s'étendre, à fréquenter de préférence les ½ personnes dont l'âge ou le mérite impose le respect et à s'interroger, avant de parler, sur la portée de ce que l'on va dire.

Couture. (For girls)

A—Un ourlet de 3 à 4c de large environ exécuté au point de côté

B—Sur cet ourlet, faire une boutonnière.

Agriculture. (For boys in rural schools)

Avec quoi et comment fait-on le beurre, le fromage?

Dessin (Épreuve facultative.)

Un modèle en plâtre à reproduire. Les élèves des écoles publiques seules y ont pris parti.

complementary course needs only a superior certificate and the teachers a superior certificate with a pedagogic. The salaries and promotions of teachers in them are higher and more certain than in the complementary course.

The superior primary and technical schools must be distinguished from the secondary schools. "The instruction must be quite another thing than a bad counterfeit of secondary instruction; nor is the superior primary school a degenerate college, it is a perfected school." These schools, destined to complete instruction of the elementary primary school system, are divided today into two types of establishments very clearly defined in all respects from a twofold point of view—administration and instruction. The administration of the superior primary schools is under the ministry of public instruction. The schools of practice, commerce, and industry, are under the jurisdiction of the ministry of commerce. Between these two types are found a certain number of technical schools governed by the law of 1880, under the jurisdiction of a so-called *condominium*, *i. e.*, having a double dependence on two ministries. A commission under the ministry of public instruction has in charge the classification of these superior primary schools, or of complementary courses created by the law of 1880. In 1892–3, by law and decree, certain superior primary schools and technical were detached from the jurisdiction of the ministry of public instruction to become schools of practice in commerce and industry under the ministry of commerce, which are described under that title.

This left to the ministry of public instruction power over the superior primary schools (properly so-called) only, which served a double function—to develop the intellectual and moral education beginning in the elementary primary schools, and to begin the technical instruction which is to continue in other schools—primary in one respect and technical in another. During the first year the pupils pursue a common course to strengthen their primary education. From the second year the courses diverge, leading to a general section for pupils whose career is not chosen and who desire a general education; to special courses in agriculture, industry, or commerce in which general instruction is not

omitted but limited in a manner to permit a greater technical training. The difference in character between the superior primary schools of the ministry of public instruction and the schools of practice in industry of the ministry of commerce is seen in the following table of hours, each week devoted to study and practice:

HOURS PER WEEK, SECOND AND THIRD YEAR.

	Superior-Primary		School of Industry	
	General	Industrial	Sec'd year	Third year
Theoretical..	20	14	12	7½
Practical....	10	14	36	39
Total.....	30	28	48	46½

Scholarships are employed in these schools quite extensively to aid worthy pupils; 10,437 were given during the ten years, 1889–1898, 6356 to boys, 4081 to girls. The amount for 1899 was 773,200 francs. They are assigned to the different departments of France on the basis of population compared with the number of schools therein. They are granted only on competitive examination, both in boys' schools and schools for girls. They are of three classes — for those that reside in the schools, for those that reside at home and have certain privileges in the school, for those of another locality that board in homes assigned by the superintendent. Pupils enter the national technical schools on special competitive examination. The merit of the candidate is determined by his examination, by the services rendered the state by his parents, by the poverty and number of children of his parents. The candidate must be at least twelve years old and not more than fifteen, may enter conditionally without the primary certificate, provided it is secured the first year, submits to written examinations in spelling, composition, arithmetic, and writing; to oral in reading, with questions on grammar and analysis, in metric system, in history and geography of France, in morals and civics, in the elements of science.

Instruction in the superior primary schools is free as in the elementary and the mothers' schools, but unlike these they are

not open to all. Only such pupils are admitted as are competent to pursue the course successfully. To determine this the pupil must hold the primary certificate obtained by examination on the subjects of the middle course of the elementary schools and the certificate of attendance on at least one year of the superior course. In larger places, where the demands for admission exceed the vacancies, competitive examination determines the order of admission. The accompanying tables reveal more clearly than words the organization of the superior primary and industrial schools. These and the programs from which they are taken are not obligatory in themselves; they are recommended as guides for the preparation of the special programs for each school which are modified by the ministry on advice of the director.

Schools of practice section of commerce provide for nine hours additional each year for boys and from three to six for girls.

In October 1898, according to a ministerial circular, there were 297 superior primary schools, 207 for boys and 90 for girls, which contained more than 31,000 pupils maintained at an annual expense of 2,999,337 francs. In 1899 the department of Seine (Paris) had 21 schools, 14 for boys and 7 for girls. These schools are not designed for youth destined to liberal careers, with ample time and means for high intellectual culture. The pupils come from the laboring classes, who must soon be able to work, most frequently at manual labor. They do not aspire to classic education. Their ambition, their probable destiny, is to fill one of the numerous employments afforded the middle classes by agriculture, commerce, or industrial pursuits. The accompanying table is a favorite form with the French superintendents. It compares the parentage and the pursuits of the pupils, completing the superior primary schools except the department of the Seine and Algeria during the last decade. The upper half gives the pursuits entered by the pupil, the lower their parentage. The figures indicate the number of pupils.

The completion of the superior primary school is evidenced

Comparison of subjects and hours in superior primary schools

Ministry of public instruction

Section of instruction	For boys									For girls		
	General			Agriculture		Commercial		Industrial		General		
Subjects / Year	1	2	3	2	3	2	3	2	3	1	2	3
Moral instruction	1	1	1	1	1	1	1	1	1	1	1	1
French	5	5	4	2	2	2	2	2	2	4	4	4
Penmanship	1	1	1	1	1	1	1	1	1	1	1	
History and civics	1	1	2	1	1	1	1	1	1	1	1	1
Geography	1	1	1	1	1	2	2	1	1	1	1	1
Modern languages	3	3	2			4	4			3	3	3
Mathematics	4	3	3	2	2	2	2	3	3	2	1	1
Bookkeeping		1	1	1	1	3	3	2	2		1	1
Physics and chemistry	2	2	2	2	2	2	2	2	2			
Natural history and hygiene	1	1	1	2	2	1	1	1	1	2	2	2
Agriculture and horticulture	1	1	1	3	3							
Common law and economics			1		1		1		1			1
Drawing and modeling	3	3	3	1½	1½	1½	1½	4½	4½	3	3	3
Manual training	4	4	4	6	6	2	2	6	6	4	4	4
Gymnastics	2	2	2	2	2	2	2	2	2	1	1	1
Singing	1	1	1	1	1	1	1	1	1	1	1	1
Laboratory				3½	2½	4½	3½	2½	1½			
Total	30	30	30	30	30	30	30	30	30	24	24	24

Comparison of subjects and hours in schools of practice

Ministry of commerce

Section of instruction	For boys						For girls					
	Industry			Commerce			Industry			Commerce		
Subjects / Year	1	2	3	1	2	3	1	2	3	1	2	3
Moral instruction								1	1		1½	1½
French	3	3	1½	4½	3	3	3	3	1½	4½	3	3
Penmanship				3	1½	1½	1			3	1½	1½
History and civics	1½	1½		1½	1½		1½	1½		1½	1½	1½
Geography	1½	1½		1½	3	3	1½	1½		1½	3	3
Modern languages				6	6	6				4½	4½	4½
Mathematics	3	3	4½	3	4½	4½	1½	3	1½	3	4½	4½
Bookkeeping			1½	6	6	6			1½	4½	4½	4½
Physics and chemistry	1½	3	1½	3	3	3						
Natural history and hygiene		1½	1½		1½		1½	3	4½	1½	3	3
Agriculture and horticulture												
Common law and economics			1½			4½						4½
Drawing and modeling	6	6	6	1½	1½	1½	6	3	3	1½	1½	1½
Manual training	30	30	33				27	28½	31½	3	3	3
Gymnastics												
Singing								4				
Laboratory												
Total	46½	49½	51	30	31½	33	43	48½	44½	28½	31½	36

by a certificate called the primary superior. The examination on which this is issued varies in accord with the section to which the candidate belongs and certificates are issued for the four sections, general, agriculture, industry, and commerce. After 1903 this certificate or that of the school of practice, industry will be necessary for admission to the national schools of arts and trades. The examinations in accord with the decree of September 17, 1893, require general tests, common to all candidates: (1) composition, moral subject, one hour and a half; (2) composition, French letter, narration, etc., one hour and a half; (3) composition, science, comprising a question or problem in arithmetic or geometry, a question in physics or chemistry, a question of natural history, or of hygiene, three hours; (4) composition, freehand drawing, geometrical relief for boys, or a simple design in needlework for girls. Special tests vary with the sections for example in the general and commercial, an easy version with lexicon at the choice of the candidates, German, English, Italian, Spanish, or Arabic, two hours. Oral tests, not exceeding an hour to each candidate, vary with the section, for example, in commerce: (1) questions on history and general geography; (2) on economic geography for different parts of the world; (3) on commercial topics, common law, and economics; (4) on modern language at the choice of the candidate.

The national technical schools were organized by France the same year of the '78 Exposition, and the question of primary technical instruction became in France a question of state. In 1881 a special commission was appointed to determine the question of organizing a grand school where superior primary education, properly called, could be united with a true technical course which school should serve as a model for similar schools to be established by communes or departments. From this has grown the three great national schools at Voiron, Vierzon Armentière, Nancy. The character of these schools can be learned from the following definition by a former director of primary education, M. Buisson:

> They are not only special technical schools, schools of arts and trades more or less complete; they are scholastic groups embracing mothers' schools,

elementary primary, superior primary, and all the degrees of technical education advancing successively from the first year, where there is little business education, even to the last semesters, where all is technical.

At the completion of the course the apprentice, who lacks nothing of being a finished workman save the practice of his trade, leaves the national school either to enter the workshop or to pass into a true technical school. These three schools are institutions preparing workmen for life.

The Jean-Baptiste-Say municipal school of Paris is an excellent illustration of the superior primary school for boys, both from the variety of courses it affords externes and internes, and the new opportunities and developments in courses and buildings. The institution affords both elementary and superior primary instruction and a fourth year of supplementary courses leading to industry, commerce and a section of general instruction which borders on modern secondary education. The elementary primary classes embrace three courses, elementary for children from eight to ten, middle nine to eleven and superior ten to twelve. The programs follow those adopted for the communal schools of Paris with the exception that pupils begin a modern language in the elementary course. At the completion of the superior course the pupils pass the examination for the primary certificate. The superior primary classes pursue three years' work. Their programs are the same as those of other schools of Paris and special sections provide for pupils destined for the national schools of arts and trades. In the third year the pupils are divided into two sections, one industrial and the other commercial and the programs vary in accord with the requirements of the section. At the close of the third year, the pupils take the examination for the superior primary certificate.

A class in English numbered nearly fifty pupils and recited twice a week for an hour and a half. Little preparation was made out of the class room and the teacher complained of a want of time to satisfactorily do the work outlined, a complaint made by the other teachers of the school. A dialogue conducted between teacher and pupil was good, especially when the pupil could aid his memory by sly glances at the text. Tone and

pronunciation were poor, but imperfect teaching accounted for that. The work was doubtless as good as that done by pupils in French of the second year in American schools and the teaching up to the average. The pupils of this class comprehended ordinary questions in English, but few could answer such questions as "How many times have you visited the Exposition?" "What day did you last visit it?" "What country were you interested in?" One of the brightest pupils said he was interested in the "men's" of Algeria. He called Algeria "these countries;" when corrected "those" and finally "that."

A new and well lighted drawing room accommodated about fifty pupils, the usual number in a division. The assembly room seated 400 and could be darkened for lantern use, the oxyhydrogen light being employed. The chemical laboratories both general and individual were new. The physical laboratory was connected with the class room and well provided with apparatus and individual laboratories are contemplated. The gymnasium is new and provided with a variety of apparatus, horizontal, parallel and vertical bars, swings, clubs and wands. Few, if any, of the other schools of the city possess these modern facilities. Other buildings are in process of construction. Dormitories and refectories were neat, well lighted and well adapted to the purpose. Each dormitory provided for twenty-five pupils and the master; the refectory for 150 pupils, the upper and lower classes eating in separate rooms. About 300 of the 800 pupils are internes and the city provides all material but the cost of board to internes—a thousand francs a year. The workshops in iron and wood were well provided with tools and the classes were working industriously in each at iron filing, wood sawing and planing. An excellent exhibit was found in the Paris building.

The relation of this school to the city may be most effectively portrayed by mentioning the principal officers that were present at the inauguration of the new buildings on March 30, 1900; the minister of public instruction presided at the ceremonies, having on his right the president of the municipal council, the vice rector of the academy, the president of the council, the

president of the administrative council of the school, the representative of the prefect of police, and on his left the prefect of the Seine, the director of primary education for France, the director of education for Paris, the representative of the minister of commerce.

The work of the technical schools for girls is well represented by the accompanying cut and no better description can be given of their exhibits than that by Miss Smith.[1]

> The exhibits of the Sophie-Germain and Edgar-Quinet schools form part of the collections in the Paris building and the former was one of its chief attractions. For completeness, simplicity and esthetic effects, it was not surpassed, if, indeed, it was equaled by any other single exhibit. . . . . Pupils are not exercised merely in copying from the antique or reproducing the decorative forms which meet the eye on every side, but they are led also to seek new motives in nature. This is the significance of the elaborate herbarium which formed part of the exhibit. The plants are collected and arranged with a view to their esthetic effects and reappear in original designs either in their natural forms or conventionalized. The designs are then worked out in lace embroideries. The cutting, fitting and designing of wraps, mantles and complete costumes are important parts of the course and some beautiful gowns were exhibited perfect in every particular. We could easily understand that in this city where fashion demands a perpetual renewal of esthetic effects, that graduates of this school find ready entrance into remunerative places. . . . . It is certain that no American city could maintain such a school at present.

The superior primary school for girls, Edgar-Quinet, Paris. is an excellent example of these schools. The desks and seats, the rooms and facilities are better than in the elementary primary school, but the building is new (about eight years old) and everything modern according to their notion though heated by stoves and ventilated by windows. The collections in the museum are well cared for but not used extensively. In the sewing room seated with low chairs and tables, a class of ten were completing fancy articles started for the Exposition, many of them pieces as elegant as those exhibited. The competitive work in darning showed all kinds and was completed in a time limit of one and a half hours, proving the possibility of an examination in needle work.

[1] *Education*, 1900.

EXHIBIT OF THE WORK OF TECHNICAL SCHOOLS FOR GIRLS

The classification of teachers is interesting. The first in charge of the class aided the pupils and were in charge of the class room, occasionally teaching certain subjects. The others, professors, instructed classes that were sent to them and taught special subjects, English, German, etc. The pupils seemed much older than their ages, sixteen years.

A supplementary division in the commercial course numbered about fifteen, and, as the teacher reviewed the subject, the character of the work was plainly brought out. The review covered the imports and exports of France from various countries. Questions on the United States showed familiarity with the subject though the idea of the extent and resources of our country was quite meager. They were greatly interested in the South African war and showed a clear historical knowledge of the subject and deep sympathy with the Boers. As one expressed it, she knew personally of their sufferings and was interested in preparing and sending supplies to them.

Jacquard, a technical school for young girls, is a typical school under the *condominium*. The aim of this technical and housekeeping school is to form skilled and intelligent workmen, able to maintain the traditions of taste and the superiority of French industry. General instruction is given at the same time as information necessary to houskeeping. Tuition is free with scholarships affording meals to necessitous pupils. No pupils live in the institution, but all are admitted at eight in the morning and leave at half past five in the afternoon, but all dine without exception in the institution.

The course of apprenticeship is three years and the work includes two series of courses, the general pursued throughout the morning from 8:30 to 11:30 and the technical during the afternoon from 1 to 5:30. The housekeeping courses include cutting, ironing, and mending, and are continuous throughout the apprenticeship period. The subjects of the special course will briefly indicate its character: needle work for robes and outfits, corsets, linen, modes, and attires, straw hats including the stitching of straw for women's hats, shaping, weaving of straw and fancy articles, blouses and costumes for little boys,

embroidery for upholstery and for costumes, flowers and feathers in fancy articles.

A certificate of apprenticeship is given the pupil at the completion of the third year when she has successfully completed the graduating examinations. Pupils are admitted to the school on competitive examinations quite similar to the other competitive examinations save that special importance is attached to the tests in ornamental drawing and needlework.

Two typical technical schools of Paris are Diderot and Boulle. The accompanying view from Diderot shows finished products from some of the courses with a model of an engine in wood, the work of pupils of the school. The aim of this apprentice school is to train workmen skilled and able to gain their livelihood on exit from the school. Apprentices are received for the following ten courses: forging, metal turning, fitting, instruments of measurement, electricity, modeling, pattern making, brazing, joinery, sanitary plumbing and locksmithing.

Apprenticeship continues three years, and a certificate is given the pupil at the close of the third year after the technical examination. The pupils choose their courses on entering the school in conformity with their number obtained at the competitive examination and in accord with the number of places vacant. The work rotates throughout the year as the pupils in a group complete the work of the different workshops. The day includes five and a half hours in the workshop for the first two classes and seven and a half hours for the third; three hours in class for the first two years and two hours for the third. The work is separated by periods of rest and recreation. The school costs the government about 280,000 francs a year, and the value of products produced by the pupils and used in the departments of the city amounts to 200,000 francs. While the work of the pupils in the manual training classes of our high schools need prove of no more value than the scrap paper used in algebra or Caesar classes, considerable saving might be developed in both departments by the use of permanent notebooks in the culture classes and the making of finished products of intrinsic value in the workshops.

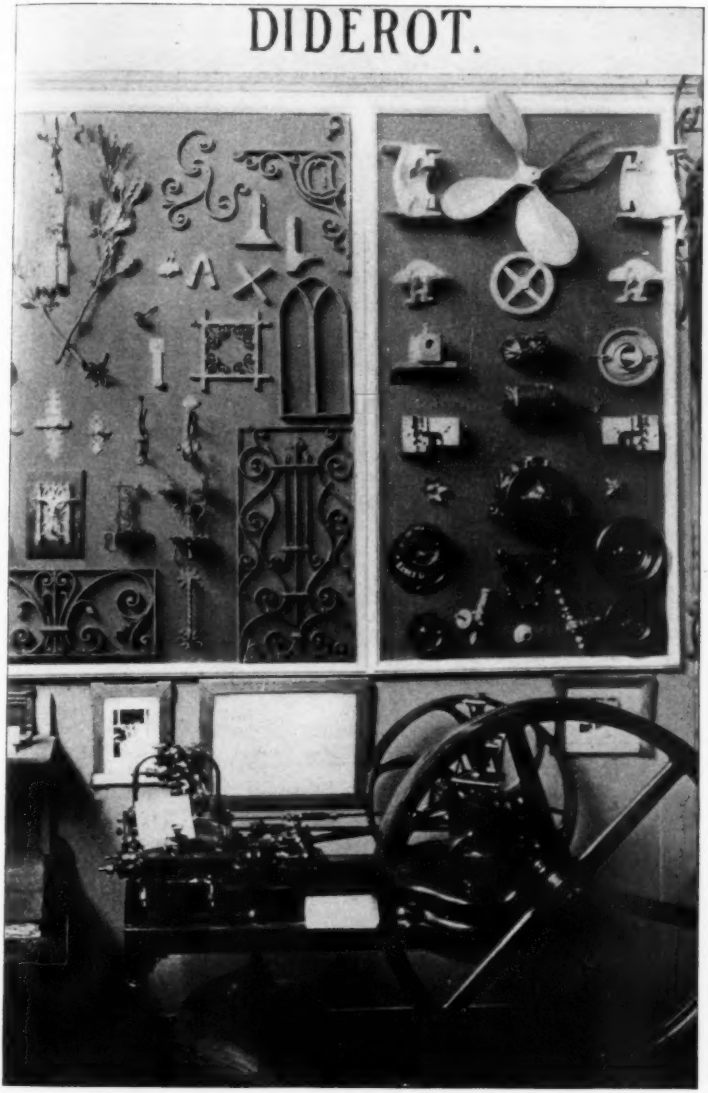


EXHIBIT OF THE DIDEROT TECHNICAL SCHOOL FOR BOYS

The school provides for externes only, but a midday meal is furnished at an expense of ten cents, and indigent pupils can secure scholarships that provide even this. The school year is forty-seven weeks long, and in the experience of the school the pupils earn at exit about double the wages of their parents in the same employment.

Boulle.—The accompanying illustration from the technical school Boulle shows the work of pupils only. The aim of this school is to train workmen capable of maintaining the French tradition of taste and the superiority of Parisian industries in all the artistic products of furnishings. Though a technical school the pupils at graduation complete an apprenticeship, and at the same time receive superior primary instruction appropriate to the demands of the trade they choose. There are two sections, one for furnishings and the other for metal work. Each is divided into two distinct branches, one technical and the other theoretic and artistic. The technical instruction is given by masters occupied wholly with the apprentices. The subjects of this technical work in the furnishing section are cabinet work, upholstery, carving in wood, joinery in seats, turning in wood and metal, molding and repairing. In the metal section the subjects are, chasing in its applications to furnishings and articles of bronze, gold working and jewelry, mounting the same, engraving dies and matrices, and the different forms used in bookmaking. The metal section, moreover, has different exercises in boring, planing, and modeling in sand. The theoretic and artistic instruction embraces a review of the subjects of primary instruction, geometry, technology, industrial economics, history of art, decorative composition, art designs, modeling applied to decorative arts and metals, industrial drawing, water colors, and stereotomy.

Industrial and commercial education, class 6, which found no special class in previous universal expositions is older in France than agricultural instruction. The first attempt to establish it is due to the Abbe de la Salle, founder of the Christian Brothers' schools, whose successors had already developed his work in 1788, when the Duke of Larochefoucauld-Liancourt established

BOULLE TECHNICAL SCHOOL FOR BOYS, FURNISHINGS AND METAL WORKING

a genuine school where general instruction and technical ideas relating to the practice of a trade were given which became the cradle of French schools of arts and trades.

In 1863, after the London Exposition, the French minister of agriculture, of commerce, and public works, aroused by the realization of the great progress made in all Europe by industries rivaling the French, created a commission for the investigation of technical instruction. A remarkable report by the director of the National Conservatory of Arts and Trades in 1865 summed up the results of the commission's inquiries. The Universal Exposition of 1878 showed once more the ground gained by rivals of France. In 1880 the investigation into art industries was the occasion of no less disturbing revelations, and the same year the law of December 11 established the schools of apprenticeship. By decree these schools were placed under the double control of the ministry of public instruction and the ministry of commerce.

The anticipated results of this dual régime were not attained, and of the thirty-six schools resulting either from new creations or from changes in existing primary schools, twenty-one only are genuine technical institutions.

Among the schools founded in the last ten years, the following are noteworthy. The National School of Cluny, opened in 1891, can be said to hold today the place lately occupied by the national schools of arts and trades. Installed in the structure once celebrated as the abbey of the order of St. Benoit, which was used in 1865 for the normal school of special secondary instruction of Cluny, it contains, as does each of the schools of arts and trades, 300 pupils. The schools of practice in commerce and industry have the character of public institutions supported by the state and municipalities to which a certain share of authority is left. By definition they are schools where instruction is truly and principally technical. They aim to form: (1) apprentices instructed and practiced in the different kinds of industry; (2) young men well prepared for the commercial career. Many of these schools include two departments, the one industrial, the other commercial, and the thirty-three schools

COLLECTIVE EXHIBIT IN WOODWORK, FROM CLASS 6, SPECIAL EDUCATION, INDUSTRY AND COMMERCE

contain about 5000 pupils. Their results are highly satisfactory, and statistics of 1896 and 1897 show that 95 per cent. of the pupils have followed the career for which they were prepared.

The superior schools of commerce are private schools, but the state's exemption of two years from military service has brought their curriculums, admission requirements, and final examinations under strict administrative control.

The superior schools of commerce today number twelve, and are attended by 1300 pupils. The number of pupils applying themselves to technical, industrial, or commercial study in France is 22,000; industry, 20,000; commerce, 2000. In Belgium it exceeds 30,000; in England, the city and guilds of London Institute alone reaches 25,000.

It should be added that a large number of free institutions have been founded by the Brothers of the Christian schools. Says a ministerial circular of 1893:

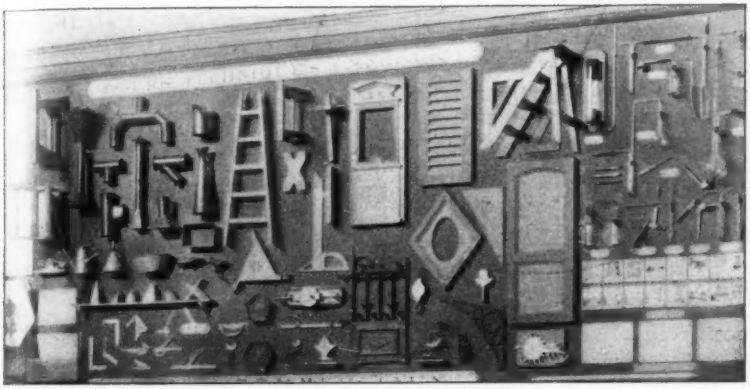
> The benefits of a general education cannot be contested. It is a solid base which augments the value of the man and renders more profitable the technical information which he acquires, and it is not the purpose of the school of practice to prescribe it. The pupils must necessarily complete their primary education, and they cannot be admitted till the compulsory school period is passed. But it is necessary to care for the demands of commerce and industry. Each day in truth commercial strife between peoples become more ardent, and the corresponding difficulties greater. Industrial lines have had a profound transformation, all is sacrificed to the aim of producing quickly and cheaply, and, as a consequence, a division of labor and the employment of machinery has done away with the apprenticeship system. . . . . It has become indispensable to afford our merchants well-prepared helpers, and to furnish from our industrial class chosen workmen — such is the task of the schools of practice.

Adult courses, evening schools.—This work that was scarcely outlined a few years ago has developed with great rapidity and today shows excellent results. The former adult courses were too tedious, too pedagogical. Thanks to the new groupings, better suited to the work the desired prolongation of this instruction has been secured.

Directors of adult courses choose carefully their programs and methods and in this way moral instruction comes to

complete an instruction that is almost wholly utilitarian and adults learn what duties await them when they reach maturity.

Nearly all adult courses include two sections, one reserved for the illiterate, the other technical or business. As developed by associations in urban districts the latter grow more popular. In the villages the teachers more conversant with agricultural science aid the farmer's lad, while in Brittany and Provence the



ADULT COURSES, NIGHT SCHOOLS OF PARIS

instructors often give winter courses on sea fishing or island fauna. The accompanying illustration gives a good idea of the variety afforded by adult courses in the night schools of Paris.

The pedagogical museum was created in Paris in 1879 which contains collections of books, scientific instruments, furniture and school material. It collects exhibits fostering pedagogical study and serves to publish and apply the best methods. In 1882 traveling libraries were authorized for the purpose of aiding teachers that wished to continue their pedagogical courses with the more special object in view of preparation for the diverse examinations for primary technical instruction. The last catalogue of circulating libraries contains 494 works. During 1899, 534 loans were made and the total number of loans to pupils were 2175. In 1896 two important educational societies of France gave the ministry their collections of photographic

views and the system of loans was organized by the museum to put them at the disposal of those that were preparing for competitive examinations. At the close of the year 1895 the ministry had added 11,000 slides to those which had been given and could place in circulation 32,600 or about 1600 collections. In 1898–9 the collections had increased to 3450 and the loans had increased to 22,600. In this last year the daily loans often amounted to 400.

It is interesting to compare this work with what New York state did in the same line during 1899. Under the superintendent of public instruction the American museum of natural history furnished to the seventy-five cities and villages of the state 22,500 lantern slides and the regents of the University of the State of New York 10,500 to the high schools of the state, total 33,000; the teachers' library of the department of public instruction possessed about 2000 volumes of different titles and loaned about 2000 volumes; the regents 50,000 and loaned 32,000 to 550 different places; the regents also possessed over 8000 photographs and 650 wall pictures and loaned nearly 4000 photographs to forty places and 528 wall pictures to decorate the walls of sixty-four places.

The teachers and pupils of France with a population of over 35,000,000 had access to about 450 books, 33,000 lantern slides and no wall pictures, and used about 2600 books and 23,000 slides: the teachers and students of New York state with a population of about 7,000,000 had access to about 52,000 books, 33,000 slides and 8650 photographs and wall pictures, and used 34,000 books, 33,000 slides and 4500 photographs and wall pictures outside the city of New York.

As I said above little attention, if any, is given to schoolroom decoration, as we know the term in America. A professor in charge of courses in the faculty of the Sorbonne showed with great interest the photographic views that he was preparing to loan through the secondary schools of France. As it was the first I had seen (in France), I became interested and asked several questions concerning his methods. He thought it an original idea and asked whether I had come in contact with it

anywhere else. I replied as courteously as possible that New York state was doing something in that line and was amused at a later date to hear him narrate my reply to a group of colleagues, crediting New York state with several rooms and many helpers in contrast with his single cabinet and three drawers. I had been flattering myself that I showed no inordinate impression of New York's leadership and was surprised to hear him describe our facilities in connection with traveling libraries, lantern slides, traveling pictures, and schoolroom decorations.

HENRY L. TAYLOR

REGENTS' OFFICE,
Albany, N. Y.

GREATER FLEXIBILITY IN HIGH-SCHOOL WORK
II[1]

THOUGH it is a matter of great importance that in the higher grades, at least, some provision be made to secure greater flexibility in the course of study; yet it is now generally agreed that more elasticity in the organization of all the grades is of even more vital importance to the welfare of the majority of the pupils. It is now generally acknowledged that true educational training may be secured by a study of one of several courses. There are few, however, who deny that it is impossible to give the best educational training, unless the system of organization be made less iron-clad. Much depends upon the subjects taught; more upon the teacher who instructs; but infinitely more than is generally supposed, upon the character of the organization. No matter how good the course or how nearly perfect the teacher, proper educational training cannot possibly be given, if the organization is such that it is impossible for the teacher to treat the individual in the manner which is evidently best for him. Those who are centering their thoughts upon the course of study, or upon methods of instruction, or upon anything else than the child, will never be able to appreciate this fact. Now that attention is being focused upon the child, the importance not only of discovering what is best, but the necessity of doing it, brings every thoughtful teacher in contact with the inflexible methods of organization, which make it impossible for her to do what she knows she should. Many blame the teacher for not doing what she knows to be best, regardless of those who are over her; however, so long as self-preservation remains the first law of nature, she should be blamed less than those who have established the methods. In all frankness, is it not time that those who are responsible for existing methods of organization acknowledge

[1] The first article on this subject treated, principally, of the necessity of greater freedom in the selection of subjects and courses. The present article will be devoted to the consideration of greater elasticity in method of classification.

that much of the so-called poor teaching is the necessary result of poorer methods, for which the teachers are not responsible?

In most cases pupils entering the high school are grouped alphabetically, or are roughly graded in divisions, instead of being accurately classified according to ability and attainments. Thoughtful educators are beginning to realize the fact that accurate classification is one of the most important factors in securing the best results. If all pupils are placed in divisions with those of about equal ability, the instruction can be carefully adjusted to the needs of each, and the best teaching is made possible. Pupils naturally love to learn what is new, and are always willing to work at whatever can be accomplished with reasonable effort. When pupils are accurately graded all can be kept busy, yet none need be unduly hurried. For years pupils have been crucified by being placed with those of unequal advancement, yet it has been claimed that they were classified. Now it is rightly demanded that they be placed with their equals. Too many have been condemned because they were not able to keep up with their classmates who were more advanced. Too long have faithful teachers been striving to keep all together, by holding back some and forever urging forward others. All should be placed where their ability and attainments make it possible for them to do good work.

None will deny that the more nearly uniform the pupils of a class are in ability and attainments, the better can the instruction be suited to their needs, the greater is the power of emulation, the larger is the number that can successfully be taught together, the easier it is to hold the attention and concentrate it upon the subject presented, and therefore the better the training given. No matter how close the grading there will always be sufficient difference in the pupils of each group to give that quickening influence which is such an important result of class teaching. Under such conditions, the instruction to all is instruction to each individual, and there is made possible the best mental growth which is dependent upon constant, healthy, beneficial, intellectual activity. It is not only possible to secure from each his best work, but it prevents over work on the part of the nervous pupils,

and on the part of others who, for any reason, should not have severe mental labor.

In some schools, classification at the beginning of the year is fairly accurate and, therefore, much is claimed for their plans. However, it is not sufficient merely to make the classification accurate at the beginning of the term. In the past, too many have made the mistake of supposing this would answer. A hundred different determining factors influence the progress of the individuals of any class: therefore the need of providing for such a readjustment of pupils as to make it possible to keep individuals where they can work to the best advantage, and receive the greatest good from the instruction. All classifications should, therefore, be temporary. The machinery of the school should not be started and then left to run itself. It needs constant readjustment. Re-classification is the only means of saving the pupils from the blighting effects due to the ever-developing improper classification. For this reason, the feasibility of re-classification is the most important test of the flexibility of any method of grading. This truth should be kept constantly in mind by those striving for more flexibility in method of classification. Those who have studied this problem most carefully agree that a proper method will make it easy to promote or retrograde whenever the pupils' progress or lack of progress results in their being considerably ahead of, or behind their classmates. This re-classification should be possible at frequent intervals, and in such a way as not to interfere with the school organization.

Perhaps the greatest weakness of our schools may be found in the method of apportioning the work. Indeed, it passes all power of comprehension to understand why, for hundreds of years, little or no provision has been made for the great differences known to exist in ability of different classes, pupils and teachers.

An all important feature of any flexible plan of grading, must be a provision that will enable each division of pupils to go just as fast as the teacher finds the pupils are able to accomplish the work as it should be done. No fixed amount of work should be demanded of any class within a given time. With but few, if

any exceptions, all high schools have the work so apportioned that a fixed amount of the course must be finished by the end of the term or year. This is a serious error. Without uniformity of conditions, it demands uniformity of results, and makes the time limit the same for all, no matter how widely the pupils, classes and teachers differ. Is this not an unpardonable pedagogical sin? Is it not absolutely defenseless on any psychological grounds? In all frankness, does it not indicate the lack of the commonest kind of common sense? These seem to be harsh questions; but does not the occasion justify plain talk? Who will give any good reason for "nailing the course of study to the calendar?" Why should advancement to suitable work be determined by the time of year? Why should some pupils stop their work, though uncompleted, simply because others have finished it?

If one starts on a journey, he should not leave the train when the schedule says the time has arrived for him to reach the end of his journey; but he should leave the train when he arrives at his destination, whether that be after or before the time fixed by the one who made the schedule. The person who would insist upon having everyone leave the train at the time scheduled for its arrival should be confined in the institution provided for such. Why then should boards of education, superintendents or others, who make the schedules, expect teachers to drive pupils through the course of study at a certain fixed rate, in spite of many different determining factors?

To show that the vital importance of this is at last being recognized, one or two quotations are added. An educator of prominence had the following to say in the *Illinois School Journal*:

> One of the strangest things in the history of educational practice is that it should have occurred to some mechanical genius that the work of a school curriculum could be divided into distinct sections, so that it would take just so many days, hours, minutes, and seconds to complete the work of each section; and that the pupils in a school, could be grouped into classes corresponding to these sections, so that they would move forward at a uniform rate, separated by fixed intervals, in what has been appropriately called 'The lock-step of the graded school.'[1] It is much more strange that this mechanical

[1] See writer's article upon this subject in the *Atlantic Monthly*, June 1897.

monstrosity should have found favor among teachers and people, and that it should have been indorsed by the almost universal practice of a generation. Unfortunately this chapter in modern educational history is not yet closed. There are still schools in which the work of each class, for each day, in each year of school life, is as definitely prescribed as though fixed by the eternal decrees of fate. The fixed class interval is a crime against childhood, and when coupled with a scheme of promotions based upon a system of examinations, daily markings, and required percentage, it constitutes a fearful indictment of modern school practice. It makes little difference whether Superintendent Shearer or some other observer was the first to see this spot on the sun. It is large enough to be seen with even half an eye. It is possible that many have observed it and guarded themselves against its malign influence by some device or other. The size of the interval is not the worst thing about it, though the shorter the better. The worst feature lies in fixedness. You cannot keep the carriages in a funeral procession at fixed intervals. Divide any number of children into classes today, and they will not be properly divided tomorrow. Neither the members in the class nor the classes in a school can move forward at a uniform rate. Differences in the natural and acquired aptitude of pupils and many differences in condition, make it impossible. To insist upon it is to benumb the strong, to befuddle the weak, and weaken all. If necessary this outrageous custom must be attacked with sledge hammer and dynamite, and destroyed.

In a late issue of the *Educational Review*, Dr. Prince, State Agent of the Massachusetts Board of Education, speaks as follows upon this subject:

There is no question of school organization at present more important than that of a proper adjustment of conditions to the needs of individual pupils. The assumption upon which most courses of study seem to be based, that just so much ground must be gone over with equal thoroughness by all pupils in the same time, is the greatest bane of our public-school system. The courses in use are probably intended to meet the needs and capacity of pupils of average ability. Such, however, is the difference of ability between the brightest third and the dullest third of almost every class of pupils, that the work required is enfeebling to one part while it is discouraging or unduly exacting of the other. To neither group is there the stimulus of success with effort. To one group there is success without effort, to the other there is effort without success. The difficulty, it is feared, is enhanced by the want of ability or inclination on the part of many teachers to adapt each lesson's requirement to the capacity of individual members of the class. There are some signs of reaction against a system which encourages or permits a dead uniformity of ability and effort. No more useful service can be rendered the public schools than that of devising ways by which the benefits of a class system of teaching will be secured, and at the same

time such an adjustment of work be made as will permit pupils of varied abilities to do the most for themselves.

Having stated the primary requisites of a flexible plan of grading for high schools, the question which naturally comes back is: Is it possible to even appreciably approach this ideal, surrounded as we all are by so many limiting conditions? It has been done quite easily, in the high school under consideration, by following a certain definite plan.

Great care was taken to see that pupils were prepared for high school before being admitted. The examination for promotion was entirely done away with, and the pupil's advancement was determined by the teacher's careful estimate of the pupil's ability to do advanced work. A premium was put upon the character of the work done day by day rather than upon the amount of stuffing which could be done in preparation for the examination. Thus the pupils were furnished a moderate and continuous stimulus instead of an excessive and spasmodic one. Very few can now be found to defend the promotion examination, though not a few still make use of the same. It makes out of the teacher a "grind;" turns out machine pupils and prevents broad and progressive teaching. It is not a test of the ability either of pupils or of teachers. It is a great temptation to deceit and causes many mental wrecks. It causes the loss of much time, shortens the school life of many, and menaces the intellectual life of all. It is largely the cause of the attempted uniformity in school work, and, until done away with entirely, there is little hope of securing any more flexible plan of classification.

When pupils were admitted to the high school they were carefully classified by the assistance of the records they had already made, and those of about equal ability and attainments put in the same division. The pupils of the other classes were divided in like manner, according to advancement and ability. The number of divisions was determined by the number of pupils in each class and the number of teachers available. The divisions were designated as A, B, C, etc. In the Freshman class there were nine divisions; in the Sophomore, seven; in the Junior, seven; in the Senior, six. Thus, in place of four divisions, or

classes, there were twenty-nine, though a much smaller number would meet all the requirements of a flexible method of classification.

Whenever it was discovered that a pupil was unable or unwilling to do the work of his division, he was given a warning, and a continued failure to keep up resulted in his being placed with the next lower division. Those absent so long as to be placed at great disadvantage in their former classes were treated in the same way. On the other hand, any who had not enough to do were advanced at any time to higher work, where their best efforts were required to keep pace with their classmates. While these changes were made whenever it seemed best, the majority of re-classifications were made at the beginning of the month, after the monthly records were complete. In place of having four classes of pupils at four points in the high-school course, there were more than twenty-five classes at twenty-five different places in the course. There was, therefore, very little difficulty in finding a suitable place for every pupil. For this reason no pupil needed to remain in a class for which he was not fitted, or where he could not receive benefit. In small high schools there could not be so many divisions; however, as before indicated, a large number is not necessary, and greater flexibility may still be secured by following the same general plan. In most high schools it will be possible to divide each class into two or more divisions. This will give from eight to twenty divisions, in place of three or four. If these divisions have been properly classified and allowed to go forward as they were able, they will soon have reached different points in the course. In some cases, where divisions are necessary, it may not be possible to make separate classes because of the lack of teachers. In such cases it has been found feasible to divide a single class into two sections. Where this is done it has generally been found best to have one division recite while the other has written work.

Each division of pupils was permitted to advance just as fast as the work could be accomplished satisfactorily, and no faster. No teacher was required or permitted to have her class cover more of the work than she found the class able to do well. No

fixed amount of the course was demanded of any class in a given time. All that was demanded was that the pupils be thorough in all the important work passed over. The teacher's estimate of what the pupils had done well was shown in a book kept for that purpose. If it was discovered that the work had not been done properly, the teacher was held responsible and required to see that it was done as it should be. Every faithful teacher of experience who reads of this peculiarity will agree that this alone would make of any school an entirely different kind of a place. Though many of the advantages of this plan will appear at a glance, a few of the more important results are mentioned briefly.

The instruction can be accurately suited to the needs of the pupils of each division. That the instruction should be suited, both in matter and in method, to the ability and attainments of those to be taught, is a fundamental pedagogical axiom upon which all others depend, and with which all others should be in harmony; yet all know that is violated in each recitation of nearly every school of our land, for the extremes of most classes cannot be benefited by the same instruction. Accurate adjustment of the instruction is possible under this plan for the reason that the pupils of very nearly equal ability are always together.

All agree that under the usual plan many pupils are not thorough in the work passed over, though they spend more time than should be required to do the work well. That they should be thorough in the essential work none dare deny. With this plan all other things are secondary to thoroughness in essentials. This may easily be secured, as teachers are not required to take pupils faster than they should go. It is unreasonable to expect any teacher to give broad and thorough instruction unless sufficient time is allotted.

Under this plan, all pupils go forward as fast as they can or should. The mental and moral benefit resulting to pupils and teachers from this, can scarcely be overestimated and it is, perhaps, the most valuable result of this plan.

The great flexibility below the high school has resulted in a great increase in the number of pupils remaining in the higher

grammar grades, and in much larger entering classes. Last year, pupils were admitted at three different times. Before the work was made flexible, a great many of those who entered remained but a short time. Now, very few leave before the completion of some one of the several courses. Within the past five years, the attendance has increased over 400 per cent. and the number of graduates has increased almost 500 per cent. while the popularity of the high school has increased to an even greater degree.

While, because of sickness or for some other reason, some lose time in their passage through the school, they do not lose more than their degree of advancement makes it right they should lose. A great many more gain time and graduate from three to nine months ahead of former classmates. While graduating exercises are not held more than two or three times a year, pupils are entitled to their diplomas when they have finished the work.

As many pupils pass through the school in less than the prescribed time, the per capita cost is considerably less than it would have been if all had remained the full time. As they pass into and through the high school as they are able, the average age at graduation has decreased considerably.

Since the effort is made to allow all to go just as fast as they can or should and none are hurried, neither pupils nor teachers have found it necessary to work under pressure. Teachers who have worked for years with the promotion examinations and the demand of a certain amount of work in a given time hanging over them, can imagine the great relief resulting from the removal of these swords of Damocles.

As the recitations are only twenty-five to forty minutes in length, the attention does not flag. The shorter class recitations increase the number of study periods so that there is much time in school for the preparation of lessons.

The interest of the pupils in all regular work has greatly increased and better work has been done. Many more take advanced work in special lines or upon extra subjects. Many also find much time for various work not considered a part of the

regular work. Though not a part of the school work proper, this extra work forms a valuable part in the education of all the pupils, and greatly adds to the interest in all school work. The following "side issues" are worthy of mention. Debating societies, literary societies, school council, scientific club, glee club, orchestra, German society, and athletics.

From what has been said, it may appear that the particular plan above mentioned is urged as the only solution of the difficult problem of providing a satisfactory method for the classification of pupils in high schools. Such is not the case. However, it is believed that no plan which does not meet each one of the three primary requisites mentioned, can possibly prove satisfactory. Other plans may be steps in the right direction, or they may be mere makeshifts which will retard the evolution of a satisfactory plan. Many have had mere theories but not sufficient confidence in their theories to lead to their being put into practice. Perhaps a previous experience has proved that it is one thing to point the way and an entirely different undertaking to lead the assault upon the strongly defended Gibraltars of conservatism. Many of these attempts have done much to help others by showing them what not to do. As many of these honest efforts are suggestive, it may be well to consider them, even though space does not permit more than brief mention of a few.

Many abandoned entirely the useless examination for promotion, that re-classification might be possible. This is absolutely necessary before any other step can be taken towards a proper plan of classification. Reports from those places retaining the final examination prove the statement just made.

The next most commonly suggested plan was to allow the promotion of individuals, whenever this is possible. This trouble was that it was not often possible; for very few pupils, who had been properly classified, were found able to successfully skip the work of a year, or even that of one half a year. Where the classes are a short distance apart, much good may result from this plan if other conditions are right.

Some having discovered the impossibility of re-classification

with the year interval, have made the interval between the classes one half year, or less. This is a step in the right direction: however, little good will result therefrom, unless proper provision is made for re-classification. The proportion who can skip the work of one half a year is very small; but it is larger than the number who can skip the work of an entire year. As frequently managed, a shorter class interval is little better than the longer interval. Though this is the case, it should not be forgotten that the shorter class interval can easily be made a long step in the direction of greater flexibility.

In the hope of keeping the brighter pupils busy, a few have permitted them to take up additional subjects, whenever their attainments and capacities were such that they were likely to be injured by being held down to the pace of the slowest. This is a commendable method of making some provision for this class of pupils, who are, perhaps, the ones most injured by the usual method of grading. In lieu of a better plan, extra lessons will often serve the purpose of saving some from the blighting effect of enforced idleness. The greatest objection to this method is, that it brings to the overworked teacher a great deal of extra work, worry, and planning. Indeed, it is claimed by some that to lay out and look after the extra work probably almost doubles the strain on the teacher. All agree that if scholars can be kept busy on the regular work it will not only be best for the pupils, but it will be most satisfactory to the teachers as well.

Other plans are being wrought out by interested educators in different sections of the country. By a careful study of many plans, all may soon find a satisfactory method which will be perfectly feasible under their own conditions. But for the hope that they might be of some use to those who are working earnestly to solve this problem, these articles would never have been written.

WILLIAM J. SHEARER

ELIZABETH, N. J.

CONSTANTS AND ELECTIVES IN THE HIGH SCHOOL

THIS whole subject of electives has been not a little befogged by the writers in our educational journals who have treated the matter as though all the conditions of the German gymnasium and the American high school were similar, save only those of latitude and longitude; while the fact is, that since the schools are an integral and inseparable part of the social and political status of a country, we cannot logically consider the former save in connection with the latter. In Germany, class distinctions and boundary lines, which may only be passed with the greatest difficulty, mark every step of progress from the primary school to, and through the university; while in the United States no such distinctions are thought of in our school systems, however much they may figure in the kaleidoscopic imaginations of populistic campaign orators. The famous simile of the educational ladder, with its foot in the gutter and its top in the university, is in this favored country no poetic fancy, but portrays in vivid language a fact many times verified in the knowledge of every intelligent adult. Every high-school teacher of experience can cite you many cases where the son or daughter of the coachman outstrips, not only in school but in the competition for literary and political honors, the son or daughter of the millionaire who rides behind the coachman. Here it is an open field, a fair fight and no favors, where the best may win and do win, even though poverty may often prove a great hindrance in the race. Such a condition of things is well nigh incomprehensible to the adult German. Bear in mind that we are now speaking not of our richly endowed, so-called "fitting schools" like Exeter and Andover, which bear some distant resemblance to the German gymnasia, but of the free high school, fostered and supported by public tax in each corporate community. If we rightly understand the case, our free schools supported by the inhabitants of every political unit from the school district to

the state by self-imposed taxes have no counterpart in Germany, if indeed in any state in Europe.

In a country with an hereditary government, a titled aristocracy and privileged classes, where the few are born to command and the many to obey, where in fact obedience to rulers is the highest civic virtue, there is nothing incongruous in having the lines of education fixed hard and fast by a central ministry of education, who may leave little or nothing to the option of the individual or the local community. But our country could no more adapt itself to such a system than to the form of civic government in Germany.

> The masses (in Germany) are debarred by higher authority from participating in the benefits of the secondary schools which they are taxed to support. Even in Germany there is not an entire satisfaction with the arrangement. The later reform movements indicate that the people at least wish to secure some form of instruction common to all the lower classes, which will enable all to pursue a higher course subsequently if pecuniary conditions permit. . . . . The European system is distinctly a class system. Only those possessed of at least moderate means can hope to secure the benefits of higher education. Newsboys and bootblacks can never hope to rise above their station. The more we can do to strengthen the continuity between primary and secondary schools, the greater will be the strength of our educational system. By extending the benefits of education to all alike, as we are surely doing, we need not be troubled with Germany's hallucinations with a land filled with "hungry candidates," the result of over-education.[1]

In the eastern states, where our free public-school system had its origin, the school was eminently a *town* institution, and as in New England the town was the mother of the state, so the public school has been a matter of *local* management rather than of state control. If in this respect there has been a loss in school efficiency, it has been offset, in part at least by local pride and personal interest in the school as an institution belonging to the people of the community.

You may demonstrate over and over again that uniform and fixed curricula—the same for all communities in the United States, would be an improvement, and yet the tradition and custom of nearly three hundred years cannot be overturned in a year or a decade.

[1] *Secondary School System in Germany*, by T. E. BOLTON.

But more than this, the opinion of the best educators, while acknowledging the weaknesses of our system, favors the American rather than the German plan. I know that many will deny that we have a system; but whether we have or not, we find even in Germany a belief that we have, and a growing, progressive party there demanding "educational reforms" in the line of what they term the "American system."

The fact is that Germany with all her solidity is moving towards the so-called "American system" much more rapidly than we are approaching the German system. Space forbids us to quote here the opinion of the eminent educators of the present day, led by such men as Eliot and Butler, who favor a large degree of freedom on the part of the high-school pupils in selecting their subjects.

The trend is all in one direction, and we can no more stop it or turn it back in its course than we can dam up the Niagara or cause the Hudson to flow northwards. The problem is in good hands and will be wrought out to the finish. Men may deny that we have in this country any well organized system of education; and if by that term is meant a scheme organized by a central ministry at Washington, the statement is correct; but the fact remains that we have a system, which with all its crudities is, like our social and political system of which it is a part, distinctively American; it will in due time be wrought out to completeness, and I have no more doubt of its final supremacy — and by this I mean its perfect adaptation to our needs — than of the final supremacy of representative government.

As it is neither desirable nor expedient to adopt a rigid curriculum, the same for all secondary schools in a state and for all pupils in a school, neither can we with safety adopt the other extreme, and allow unlimited choice of subjects among high-school pupils. The principle of electives in large high schools is still in its infancy. Even in colleges its evolution has not been continuously progressive, but, like most reforms, its course has been somewhat of a zigzag. At Harvard, the mother of colleges and the leader in the so-called elective system, it has been found expedient to adopt the system of election by *courses* rather

than by *subjects*. The same reasons which render it wise to limit the selection of subjects in college operate with tenfold force in the high school.

In the smaller high schools, while we usually find a limited number of constants, regarded as essentials in *all* advanced education, classes in other subjects are likely to be formed according to the wish of the pupils, or the equipment of the faculty, rather than according to a fixed program. Hence it may happen, that the small school by its very limitations sometimes offers opportunities for electives which are denied in larger and better equipped institutions. This is very likely to be the case if a few parents, or even pupils of good standing, call for a class in this, that, or the other subject. For this reason the old-time academy, barring a few special fitting schools, was conducted largely on the elective principle, though we are accustomed to think and speak of this latter as one of the "fin de siècle" ideas.

But when we come to the large high school we meet with greater difficulties in the way of freedom in selecting, or electing subjects. Perhaps the first difficulty to be met, provided the principal favors a large degree of freedom on the part of pupils in selecting their subjects, would be the conservatism of the members of the faculty. The tendency in our city high schools is toward departmental teaching and a long term of service on the part of the teacher. Thus it not unfrequently happens that the principal is the "junior member of the firm" in point of service, and he may find the so-called "heads of the departments" opposed to all innovations not initiated by themselves. Besides being wedded to the "course of study" as it is, there is always danger, in their eyes, lest their own department be neglected or possibly side-tracked, if students are allowed any considerable degree of choice in their subjects. We are not objecting to the departmental system, and least of all do we object to the long tenure of teachers, but we are pointing out the difficulties to be overcome in introducing electives.

According to the Homeric theogony one might bribe, cajole, or circumvent the deities, but back of the gods of Olympus were the fates, like the modern bosses back of the legislators; so there

might be a substantial agreement among the members of the faculty, but the members of the board of public instruction, having "made a course of study," might refuse all interference with the same, in which case there could be no change until a new election, or a new appointment should reconstruct the fates.

But if there should be general unanimity between the board and faculty, the next difficulty is the great disproportion in the ratio of pupils to teachers. Suppose we have twenty-five teachers and 800 pupils; deducting your special teachers of music, drawing, manual training, elocution, etc., we have left for general class-room work, eighteen or twenty teachers, and giving to each teacher four or five exercises, or classes per day, and to each pupil four or five recitation exercises per day, it will be readily seen that the number of subjects that can be taught beyond what most would agree are essentials (hence constants), must be very limited. This is especially the case in a departmental school where certain teachers are designated as belonging to the Latin, mathematics, English departments, etc. In such cases surplus Latin teachers could not, at the will of the principal, be transferred to the science department, nor could elective classes in English be assigned to the teachers of German and French.

Again, the pupils lack the experience necessary to enable them to choose intelligently. Says President Tucker, "Choice is a matter of judgment and judgment is not a product of immaturity." Call to mind the high-school pupils as you and I have known them. They enter at ages varying from thirteen to fifteen. Most of them come from homes of respectability, but few from homes of culture. Their stock of ideas is yet too limited to enable them to decide what studies are best for them, or even what subjects they are likely to pursue with most interest. They have no reliable data on which to found a choice, and are as incapable of selecting the subjects or order of their studies as I should be of deciding upon an agricultural system for the inhabitants of Mars, and for the same reason — lack of proper experience or knowledge.

While our high schools do not exist for the purpose of fitting

pupils for higher institutions, it is a fact that many tax-paying parents send their children to the free high school as a preparation for college or technical school. These pupils, while a small minority of the whole, are a very important minority, and the entrance conditions fixed by higher institutions rightly have much influence in fixing certain subjects as constants in all high schools—such, for instance, as English, geometry, algebra, and history. But if it could be shown that there is a valuable residue of pupils capable of choosing for themselves, and unable to reach a higher institution, it would be well-nigh impossible to provide for them special courses in any department, from the fact that most schools lack the facilities, or properly trained teachers, or both, to do the work required in any specialized, advance course. It may be that we have very good teachers in algebra and geometry who are yet unequal to instruction in calculus or quaternions, even if their time were not already overmortgaged to the elementary constants. The same might be true in regard to quantitative analysis in chemistry, or advanced study in physics. What we maintain is that electives in the high schools beyond those usually allowed, are of little importance unless the term signifies the privilege to do specialized work, far in advance of that ordinarily provided for. No one complains that we have not already sufficient "smatterings," but for the reasons we have endeavored to state, the outlook is not encouraging for introducing an extended system of electives, if these are to include work beyond the barest elements. It is all very well to say, "if we have not the equipment, get it;" but I think we may be content if we can have high schools well equipped for secondary work. It was never intended that they should be universities, nor is it desirable that they should be.

Since then the hard and fast system of the German gymnasium and absolute freedom in the selection of subjects are alike undesirable and impracticable, we must seek some golden mean best adapted to our needs. The following seems to be a reasonable solution of the problem: Parallel courses, three or more, differing but slightly in the work of the first year with no room for options beyond a choice of courses; for the second year to

further differentiate the courses most of the subjects in each still being prescribed; for the third and fourth years, constants or required subjects, to be fewer and consequently a larger number of electives allowed.

As an illustration let us cite the instance of a certain high school, not as ideal but workable. The school numbers about 800 pupils and claims to present four courses of study, but in reality these differ in almost nothing the first year, but a foreign language. Each pupil chooses whether he will take Latin, French, or German; but all are required to take English, physiology, history, and algebra. These may not be the best constants but they seem to be proper and necessary subjects for pupils beginning secondary work. For the second year those who wish, may begin a second foreign language (which constitutes the classical course), while the others will in place of a second foreign language take a year of physics; but all will take geometry and rhetoric.

Foreign language selections are now supposed to be made for the course and in the third year there are options of solid geometry, bookkeeping, higher algebra, and botany; but all not taking a second foreign language take a year of English literature. In the fourth year, pupils are ready to determine whether or not they intend to continue their education beyond the high-school. Those who expect to continue are allowed to choose various subjects according as they may be required for entrance to the particular institution which they wish to enter.

As a rule all those who do not wish to prepare for a special institution are perfectly satisfied to follow a prescribed course with a few options. It is always understood that a pupil following a specified course may select as much extra work from other courses as he is mentally and physically capable of accomplishing.

This plan provides, so far as the school equipment will allow, for pupils who wish a preparation for higher institutions, and for those whose schooling terminates with the completion of a high-school course. There may still be some (in my experience the number is small but it contains cases worthy of provision) who

do not care especially for the school diploma or a preparation for a particular college, or who from circumstances beyond their immediate control, have but a limited time in which they can attend the high school, and therefore desire instruction in certain subjects which, to them at least, seem a sort of "paramount issue" as compared with others in prescribed courses. If these upon investigation prove to belong to the "hobo" class in search of something in exchange for nothing, it is easy after a short trial to pass them on with a certificate of worthlessness.

But worthy cases will be found like the following: Resident graduates of your own school who wish to take up some subjects which they were unable to pursue during their course, or who desire to strengthen themselves on some subject which to them was difficult, and in which their record was unsatisfactory; graduates or others from other secondary schools who wish to pursue some subjects which were not taught in their previous school; those who wish to enter a technical school upon the shortest possible preparation; and lastly, boys and sometimes girls from the country who are obliged to "go a term and skip a term" meanwhile getting up certain subjects by themselves between times.

I may only add in this connection that the boy or girl entering your high school without any previous experience in secondary-school work is, with the rarest exceptions, in no condition to choose subjects outside of the first year courses of study, for the simple reason that those are as a rule the only subjects taught in school with which he is competent to deal. But all pupils who can give a valid reason for preferring special subjects for which they have had the previous proper training should be allowed the privilege, provided they can enter classes already formed in those subjects.

To briefly recapitulate then our plan; (1) a choice in courses; (2) privilege of taking any extra work of which the pupils are capable and thus shortening the time required for earning a diploma; (3) the privilege of substituting in the third and fourth years subjects in one course for those in another, provided the exchange is an equivalent; (4) privilege of entering any classes

formed in the regular course for which the applicant is fitted, for the purpose of doing special work.

The one and the only safeguard necessary, so far as my experience goes, is that in every instance where a departure from one of the prescribed courses is asked for, the request must be made in writing by the parent and approved by the principal. In case of non-approval by the principal an appeal should be open to the superintendent or the board. But in the nature of the case they can know nothing of the merits of the application except through the principal or faculty.

The plan above outlined provides amply for those in preparation for college, those for whom the high school is a *finishing school*, and enables those who cannot secure the whole to get a part, and what—to them at least—is the best part of the high-school course.

OSCAR D. ROBINSON

ALBANY, N. Y.

HOMERIC HIATUS

THE object of this paper is to call the attention of teachers to the unsatisfactory form in which the laws of Homeric hiatus are stated, in the best and most recent manuals, and to point the way, if possible, to a clearer and more intelligible account of this important subject. The portion of Homer which I shall make the basis of the discussion is the first three books of the *Iliad*, since these books are of special interest to American teachers.

Professor Jebb, in his chapter on Homeric Versification,[1] states the laws of hiatus as follows:

> Hiatus is allowed in Homeric verse under the following conditions:
>
> 1. After the vowel ι, or υ.
>
> 2. Where a caesura comes between the words. . . . The feminine caesura of the third foot . . . . is that which most frequently excuses hiatus.
>
> 3. After the first foot.
>
> 4. Before (at?) the bucolic diæresis.
>
> 5. When the vowel at the end of the first word is long, and belongs to the ictus-syllable of a foot.
>
> 6. When a long vowel, or diphthong, is made short before the following vowel or diphthong.

This statement seems to me to be unsatisfactory, for the following reasons:

1. No effort is made to explain *why* hiatus is allowed under the circumstances described. The student receives the impression that the whole subject is governed by arbitrary or conventional law alone. He is led to believe that hiatus is avoided, and then informed that it is tolerated under a variety of conditions, and a variety so large and so miscellaneous that he wonders why it was worth while to consider hiatus as exceptional at all.

2. The different situations in which hiatus is allowed are not arranged in any intelligible order, either of logical development or of frequency of occurrence or importance to the student. Rule 1 covers a very few cases only. Rules 2, 3, and 4 are not

[1] Introduction to Homer, pp. 193 f.

strictly rules for allowable hiatus (see below), but merely efforts to explain or classify a few sporadic cases. Rules 5 and 6 are by far the most important of all, though rule 6 ("improper" hiatus) belongs to a class by itself. Rules 1 and 5 belong together, as will appear in the following more detailed comments:

Rule 1. This applies to so small a number of cases (but seven in books A–Γ) that it is scarcely worth mentioning. Hiatus after ν, in particular, is extremely rare. Some explanation should certainly be added.

Rules 2, 3, 4. These also apply to but a handful of cases. There are in A–Γ, all told (at the three places in the verse specially named) but twenty-one cases of hiatus which are not otherwise accounted for. Nine of these are at the diæresis after the first foot, seven at the caesura in the third foot (to which rule 2 gives an unwarranted importance), and five at the bucolic diæresis. On the other hand, at places *not* mentioned in the rules, there are four at the diæresis after the second foot, three at the diæresis after the fifth foot, one at the diæresis after the third foot, and two at the caesura in the second foot. In the face of these facts, which could easily be confirmed by a wider scope of investigation, it seems hardly worth while to set up rules which justify hiatus at special points in the verse. We can only say that irregular hiatus occurs occasionally in almost all parts of the verse; a little more often, perhaps, at the end of the first and fourth feet, and at the caesura in the third foot, than elsewhere. I cannot but think that the statements frequently made as to the large number of cases of hiatus at the feminine caesura in the third foot include many examples which easily admit of some other explanation.[1]

Rule 5. This is an important rule, but surely some effort should he made to explain the reason for these cases, which number 156 in A–Γ.

Rule 6. This is by far the most important rule of all, covering 602 out of the 1076 occurrences of real or apparent hiatus in A–Γ. This fact, together with the "improper" character of the hiatus in these cases, since (semi-) elision has really taken place, should certainly be placed in a conspicuous light.

It is by no means suggested that the brilliant scholar, from whose charming little book I have cited the above rules, is ignorant of the facts which I have stated. No doubt Mr. Jebb *sees*

[1] This may be illustrated by an examination of a few of the cases of hiatus at the point in question, taking them up in order, from the beginning of A. The hiatus in 2 is justified by the elision. 4, *ϝελώρια*. 17, semi-elision. 30, semi-elision. 46, semi-elision. 112, semi-elision. 172, *ϝάναξ*. 190, *ϝερυσσάμενος*. 233, semi-elision. 242, semi-elision. 260, semi-elision. 266, semi-elision, etc. Not till 565 do we find a case of hiatus (at the point in question) which seems to be excused by the caesura, and even here the pause in sense may be the sounder explanation.

the whole subject in a perfectly correct light, but his rules, repeated for the most part in a form handed down by tradition, are certainly misleading to the young teacher, and need sifting and clarifying. Only in the matter of hiatus in the third foot can there be any real difference of opinion. I am inclined to think that theories of the origin of the Homeric hexameter, from a union of two shorter verses, have led many to attach too much importance to the point of juncture in the third foot as an excuse for hiatus there. Such an opinion is scarcely justified by the facts, which show that cases of hiatus, not otherwise accounted for, are scattered with some approach to uniformity throughout the verse.

Passing now to the constructive part of this discussion, I shall endeavor to suggest a form of statement of the laws of Homeric hiatus, which shall be free from some of the difficulties which I have mentioned.

We must begin by grasping clearly the relation of hiatus to elision. It is customary, in Homeric poetry, wherever a final vowel is followed immediately, in the same verse, by a word beginning with a vowel, for the final vowel, if short, to be elided, and if long, to be half-elided, *i. e.*, to lose half of its quantity When this regular process of elision, or semi-elision, fails to take place, the fact calls for explanation. Hiatus, then, is the neglect of elision, or semi-elision. The explanation of hiatus should always take the form of an answer to the question "Why is the final vowel not elided, or half-elided?"

A real or apparent violation of the law of elision may take place under the following circumstances:

A. APPARENT HIATUS

1. When the second word originally began with a consonant, the presence of that consonant (usually, but not always, the digamma), or even its memory, if it had already faded from use, was a natural and sufficient barrier against elision. This accounts for 240 of the cases of neglected elision in A–Γ, or almost one fourth of the whole number.

B. IMPROPER HIATUS

2. When the first word ended in two vowels, one of which has already suffered elision, a second elision would maim the word so much that it would scarcely be recognizable. At the same time, the elision which has already taken place tends to bind the two words so closely together in pronunciation that the hiatus is not felt. This rule applies to 40 places in A–Γ.

3. When a long vowel at the end of the first word has lost half its quantity before the following vowel, semi-elision has already taken place, so that the law of elision is satisfied. There are no less than 602 cases of this in A–Γ.

C. JUSTIFIABLE HIATUS

4. The vowel *υ* is never elided, and the vowel *ι* but seldom. The ability of these vowels to resist elision is probably due to their semi-consonantal character. When *ι* is followed closely by another vowel it tends to develop a *y* sound, and *υ*, in the same way, a *w* sound, which interpose an obstacle to elision. But since few words end in *υ*, and final *ι* is often protected by *ν* movable, there are but few cases of hiatus after *ι* (six cases) and *υ* (one case) in A–Γ.

5. In the accented part of the foot, the metrical accent itself often seems to give the vowel sufficient firmness to enable it to resist elision. This rule may seem to be irrational, and a mere device to explain hiatus. But the fact that there are, in A–Γ, no less than 156 cases of hiatus after a long vowel in the thesis, seems to justify the explanation just given. We should scarcely venture to class all of these as cases of "illicit" hiatus, when so satisfactory an explanation of the non-elision is at hand.

D. ILLICIT HIATUS.

The principles thus far stated account for 1045 out of the 1076 cases of real or apparent hiatus in A–Γ. In all of these the neglect of elision is due to some legitimate and easily discerned cause. The 31 remaining cases[1] may fairly be called "illicit," and explained as due to negligence of style. A few of

[1] A 27, 39, 145, 203, 333, 505, 532, 551, 565, 568, 569. B 8, 87, 90, 105, 107, 198, 216, 218, 231, 253, 262, 315, 332, 397, 528, 625, 697. Γ 24, 46, 379.

these, to be sure, occur at points where there is a pause in the sense which may excuse the hiatus (so in B 218), and others at certain recognized metrical stopping-places, such as the pauses after the first foot, in the third foot, and after the fourth foot. Others may perhaps be explained in future as "apparent," when our knowledge of etymology enables us to discover still other lost consonants. In desperate cases, the text will perhaps be emended.

SUMMARY FOR A–Γ[1]

Lost consonant	240
Elision	40
Semi-elision	602
After ι	6
After υ	1
After long vowels in thesis	156
Other cases	31
Total	1076
Apparent Hiatus	240
Improper Hiatus	642
Justifiable Hiatus	163
Illicit Hiatus	31
Total	1076

EDWARD B. CLAPP

UNIVERSITY OF CALIFORNIA

[1] This summary is intended to be complete and exact. But in collecting and classifying so many examples, both eye and mind tend to become bewildered, and some errors may have crept in.

EDITORIAL NOTES

GEORGE HERBERT LOCKE

THERE have lately gone into effect in Prussia certain changes in secondary education which have a decided interest for us. The practice of all Gymnasien (with the exception of the few reformed schools about which Dr. Thiergen has written in the SCHOOL REVIEW) has been to commence Latin in the *Sexta* (the lowest class), French in the *Quarta* (the third from the lowest), Greek in the *Untertertia* (the fourth from the lowest), and to teach English as an optional subject in the highest three classes. The king now recommends English to be taught as far as *Untersekunda* as an alternative subject to Greek (for three years therefore); English is to take the place of French as an obligatory subject, French the place of English as an optional subject in the highest three classes of Gymnasien situated in towns where local conditions would warrant the change. For the Oberrealschule the recommendation is that special emphasis be placed on the teaching of geography and that more time be given to it. A great stimulus to secondary education has been the military certificate granted upon the completion of a six years' course of study. This might be accomplished by graduating from the Realschule which had only a six years' course or by being promoted in the first grade schools with their six years' course from *Untersekunda* to *Obersekunda*. The certificate entitles the holder to substitute one year's military service with enhanced status for the ordinary term of two years. Before 1892 the certificate of promotion in a first grade school was sufficient, but with the revised curriculum of that year a special government examination was established with the object of encouraging a certain completeness of work in the six years and also that the stream of university aspirants might be checked. This last reason is very interesting to us who are working for exactly the opposite end. The examination did not accomplish the results desired. The aspirants for the university education grew in numbers, and now it is to be abolished. A further interesting development is the royal encouragement given to the schools that are proposing to work on what is known as the Frankfort plan. This means that the differentiation between the Gymnasium and the Realgymnasium comes later than in the old established plan. There is found a common basis extending over three years for all types of secondary schools by beginning French in the lowest class and postponing Latin to *Untertertia* (fourth class from the lowest); further by postponing Greek in the Gymnasium to *Untersekunda* (sixth from the lowest), and English in the Realgymnasium to the corresponding class. In this way

a common curriculum is made possible for the classical and semi-classical schools. These are significant reforms, and the results will be watched with great interest by students of secondary education.

SINCE we have commented on the recent action of the Emperor of Germany in regard to secondary education it may be of interest to reproduce a letter written at Potsdam, April 2, 1885. This appears in a book just issued, entitled *Our Emperor and School Reform*, and we are indebted to the London *Morning Post* for the copy:

Geehrter Herr Amtsrichter — Accept my heartiest thanks for the two pamphlets which you sent to me. I have read "What we are Suffering From" with great interest, and still greater pleasure. At last, then, some one has stepped forth to attack with energy this petrified and most soul-killing of all systems. I subscribe every word you have written. Fortunately, I had two and a half years in which to convince myself of the manner in which our youth are sinned against. On many things which you adduce I have myself pondered in silence. To mention only a few: Of the twenty-one "Primaner" who composed our class, nineteen wore spectacles, and of these three had to call in the additional assistance of a pince-nez in order to read what was on the blackboard!

Homer, the glorious man, for whom I greatly "enthused," Horace, Demosthenes, whose orations must inspire everyone — in what manner were they read? With any enthusiasm for the descriptions of the battle, the arms, or of nature? Heaven forfend! Every sentence was divided and quartered with the dissecting knife of the grammatical, fanatical philologists, until the skeleton was snugly laid bare, and the general admiration claimed for the number of manners in which ἀν or ἐπι could be placed. The Latin and Greek essays (a monstrous nonsense), what an amount of time and trouble they swallowed! And what stuff it was that finally was produced! Horace would have given up the ghost at sight of it!

Away with this rubbish! War to the knife against such teaching! The result of this system is that our schoolboys are better versed in the syntax and grammar of the ancient tongues than the old "Greeks" themselves, that they know by heart the generals, battles, and order of battle in the Punic and Mithridatic wars, but are very much in the dark concerning the battles of the Seven Years' War, to say nothing of the "far too modern" wars of '66 and '70, which they have not "yet had"!!!

In regard to the physical aspect of school life, I am decidedly of the opinion that the afternoon should be free once and for all. The "Turnunterricht" (gymnastics hour) ought to give the boys pleasure. Obstacle races and climbing would be valuable innovations. In the towns where there is a garrison, it would be very desirable if two or three times a week a non-commissioned officer were to train and drill the elder boys with the aid of poles, and in place of the so-called class walks (with elegant walking sticks, black coat, and cigar) a regular march with some field service, even if it were to degenerate into games and horseplay, would be preferable.

Our "Primaner" — we unfortunately had the same faults — were far too *blasé* to take off their coats and get to blows. What can one expect from such little people? *Guerre à outrance*, therefore, against this system. I am right willing to assist you in your effort. I am rejoiced to meet with one who speaks "German" and acts with energy.

Yours,

WILLIAM, PRINCE OF PRUSSIA

THE problem of commercial education — of commercial courses in our high schools or of commercial high schools — is now one of the most difficult problems we have to solve. It presents but little difficulty in *theory*, for many superintendents and principals outline a course of study which they think will give an adequate training and then wonder that the product of this education is not received with open arms by the merchants who are to receive this so-called finished product. Some of these commercial courses are wonderfully constructed, partly from analogy to the other courses in the school, partly from the accounts given by educational travelers of what is being done in Germany and other foreign countries, and partly again from the ideas which these course makers have of what a commercial education should be. A rational way of looking at this subject is to ask the employers of our graduates who go into business where the defects in our training show themselves and what suggestions can be given toward remedying these defects. In other words, what does a business man expect from a graduate of a high school? At a recent meeting of the Merchants' Club of Chicago, Mr. John G. Shedd, of Marshall Field & Co., said that he was deeply impressed with the great necessity and value of a radical change in the course for a large percentage of the pupils who intend to follow a business career. He advised two separate courses, a four years' course for those who can afford to continue higher education, and a two years' special business course which will include arithmetic, mental and written; writing, including business correspondence; rhetoric; commercial geography; and a short course in bookkeeping, accounting, and physics. He emphasized the fact that business men are looking for the high-school graduate and the college graduate, for among them will be found the successful business men of the future. The faults, as he has seen them, are that the young man seems to impress his prospective employer with the thought that he seeks business as a necessity and not from choice; that he prefers a profession but cannot afford it. His written application shows lamentable deficiency in penmanship and he stumbles at the simplest arithmetical problem. When informed that his total of the given figures is incorrect, he discovers that he mistook his 1 for a 7, or his 3 for a 5, showing again faulty penmanship. In simple fractions he struggles away until finally, by some long process, he may reach the correct result, but he seems to have no idea of the shorter methods practiced in the business world. A visit to many of our schools will reveal the truth of this last remark, where one will find pupils struggling away with the H. C. F. and the L. C. M., working them out — some thirty or forty examples — by the long, antique process described in the book and insisted upon by the teacher. It seems to be still unsafe to wander far from the book. Mr. Shedd was not so far wrong when he said that he feared that from grammar school to university the suggestions and teachings of those charged with instruction are logically toward the professions as being in harmony with educated thought. Mr. Farwell, of the John V. Farwell Company, endorsed what Mr.

Shedd had said, and added that to be successful in business a young man must have character, ability, and physical endurance. He had found these in the graduate of the rural high school rather than in the graduate of the city high school. Our schools will need to develop self-reliance, and power to organize the acquired knowledge, if we are to turn out men who will make their way in this day of sharp business competition where intelligence and resourcefulness are so necessary.

THE School Board of Chicago, on the advice of Mr. Nightingale, has abolished the elaborate graduation exercises of the high schools. Hereafter these will be simple in character and will be held in the high schools instead of in some large hall or theater down in the heart of the city. It was mainly because of the expense incurred by parents to suitably garb their children and provide them with flowers and other incidentals deemed necessary by the children.

IT will be remembered that Mr. H. R. Corbett made some interesting investigations into the problem of rural high schools and contributed the results to this journal during last year. It seems that his deduction that this was a live question was correct for there is a bill now before the Michigan legislature permitting the establishment of such schools. It provides that the board shall call an election on this subject on petition of not less than one third of the voters of the township, and if the proposition carries the township may bond itself for $5000.

THE teachers of New York City have urged from time to time that their salaries ought to be increased and that in many instances the janitor of a public school received a larger salary than the principal. This assertion has been unexpectedly proved in the *City Record* just issued by the municipal authorities:

E. H. Terwilliger, janitor of School No. 1, draws $3887 annually and William H. Ettinger, principal of the same school $3250. Henry Cassidy, principal of School No. 5 is paid at the rate of $3250 a year and C. K. Birdsall, who sees that the same building is swept out and that the fires are kept burning, gets $4420. Of the 180 janitors of public schools in New York City, 26 draw salaries of $3500 a year or more. Quite a number are paid more than $4000 each, while hundreds of teachers are on the rolls at $600 a year. Even some of the professors and practically all of the assistant professors and instructors in the College of the City of New York are paid less than the leaders among the head janitors of the public schools.

MR. SIDNEY WEBB, vice chairman of the Technical Education Board of the London County Council, recently contributed to the *Daily Mail* a series of articles on "Middle-Class Education in London," from one of which we take the following particulars of the secondary endowed and aided schools in London:

Besides the elementary schools of the London School Board, London has now an excellent series of public secondary schools, four-fifths of which are aided, inspected, and directed by the London County Council. These are largely maintained out of

old endowments, reorganized by the Charity Commissioners. But during the past eight years most of them have been put on a new basis by the county council, which has, by it liberal subsidies, built excellent science laboratories, greatly improved the teaching, modernized the curriculum, and lowered the fees in the old schools, and caused several new ones to be opened.

London has in this way over sixty schools, providing every kind and grade of secondary education out of public funds, and under public management. Some thirty-five of these are for boys, nineteen for girls and six "mixed." These schools are, of course, open to all classes, but they are specially adapted for middle-class children. In no other city in the world has the middle-class parent so large a choice. . . . . The public secondary schools are not, indeed, free; most of them charge a fee of £2 or £3 per term, though some go as low as £1, and a few run up to £6 or £8 per term. But the education provided costs far more than the fee. The school board gives, for nothing, an education costing some £5 a year. The public secondary schools under the county council give, for an average fee of £5 a year, an education costing £10 to £25 for each boy or girl. . . . . It is sometimes supposed that these old foundation schools do not give a modern or so-called "commercial," education — this is a mistake. The London County Council has seen to it that these schools provide a first-rate modern education. The schools are, indeed, not all of one pattern. Cast-iron uniformity does not do in secondary education; and for this reason, among others, each school is left to be managed by its own body of "governors." One school makes a speciality of science and mechanics; another is distinguished for modern languages. Some schools work up their best boys or girls for Oxford and Cambridge; others aim more at preparing for business careers. . . . . East London has eight of them; South London more than twice as many. Some, like the Whitechapel Foundation School, are specially good in foreign languages, teaching not only French and German, but also Spanish; others, like St. Dunstan's College, Catford, excel in science and mechanics, and are specially suited to boys intending to be engineers or chemists.

At University College School the county council has set up a first-grade commercial school, equal to anything on the continent. Here a boy will get the very best preparation not for a mere junior clerkship, but for the more responsible positions in the world of commerce. The Addey and Stanhope Schools, at Deptford, have, perhaps, the finest school and buildings in England. Dame Alice Owen's Schools, at Islington, and the Aske Schools, at Hatcham, have an all-round excellence which it would be difficult to find surpassed. The Latymer Schools, at Hammersmith, are more than full. The Coopers' Schools, Parmiter's School, and the Raine School provide a sound commercial training for East-end boys. No fewer than six schools are attached to polytechnics, and enjoy the benefit of their scientific teachers and laboratories.

There are many others equally as good which I am unfair in not mentioning. Most of those named provide for girls as well as boys, while others, like the Camden and Datchelor Schools, give a first-rate education for girls only. And above them all stand London's magnificent first-grade schools, such as St. Paul's, Dulwich, the City of London School, the North London Collegiate School for Girls, and so on.

BOOK REVIEWS

The Teaching of Mathematics in the Higher Schools of Prussia. By J. W. A. YOUNG, Assistant Professor of the Pedagogy of Mathematics, University of Chicago. Size, 7½×5 in. Pp. xiv+141. Price, 80 cents. New York: Longmans, Green, & Co.

FROM the profusion of loose pedagogical theorizing through which the mathematical teacher, who is desirous to improve, has of late had to feel his way, it is refreshing to turn to an account of something which is actually being done. This little volume is a systematized report of what Mr. Young saw during the greater part of a year spent in visiting the schools of Prussia with a view to ascertaining the general status of the schools; the part played by the government in school administration; the character of the teaching and of the teacher's preparation; the classes of institutions and the nature of their curricula.

The book is largely statistical in character, the author apparently preferring to allow the facts and results to speak for themselves. The report shows clearly that the military spirit of Prussia has left its mark upon the educational system of the country to so great an extent as to unfit it to American conditions; but that in many ways the mathematical teacher of our country may gain immensely from a study of Prussian methods of instruction. One closes the book with the feeling that rather too much attention has been paid to the better classes of gymnasia, those of Hanover, Frankfurt, and Berlin receiving substantially all the attention, and that the book is likely to give too favorable an idea of the schools of Prussia. The references to fuller details of the system, which are sprinkled through the book, give one the means of correcting his idea in this particular.

In the writer's opinion the book evinces rather too great a disposition to judge of the merits of a system of education by the character of the examinations and the way in which students pass them. When we remember that the teachers themselves have been brought up under the highly — shall we say too highly — organized Prussian system, and that they have not a little to say about the subject-matter of these examinations, it is not difficult to see that students might be put into condition to make a very good showing on the examination without having the substance of education. When a definite goal is set and the teacher, if not the pupil, knows pretty well from both experience and official relationship, what the goal is, the struggle to reach it is half over. That, however, the substance of education is secured under the Prussian scheme is proved by the array of great Prussian mathematicians who have shed luster upon the century just closed. This fact is also pointed out by the author, though, we think, rather too incidentally.

Finally, the thought which most forcibly impressed the writer as he read both on and between the lines, was that most of the ills of secondary mathematical teaching will be corrected when our school authorities shall have made efficient scholarship on the part of candidates for teacher's positions a prerequisite to appointment. The demand

for higher efficiency will hardly be met without adding materially to the remuneration of the secondary teacher as well as to his feeling of security in office. Until this can be brought about teaching cannot become a profession with us as it is with the Prussians, and no amount of wrangling over methods of teaching can be expected to bring relief. School officers do not yet believe that the best method in the hands of the unskillful teacher is deadening to both teacher and pupil, and that a poor method will do much in the hands of a living thinker at the teacher's desk.

This modest little volume which theorizes so little and yet stimulates so much thought on the reader's part should be on the book-shelf of every wide-awake teacher.

G. W. MYERS

CHICAGO INSTITUTE

A Text-book of Geology. By ALBERT PERRY BRIGHAM. Pp. 477. D. Appleton & Company, 1901.

PROFESSOR BRIGHAM'S new work belongs to the "Twentieth Century Text-Books." It is a carefully written treatise and deserves the attention of teachers of geology in the secondary schools. The author has followed conservative methods of treatment, there is but little attempt made to present topics in a new and striking way. The whole work may be characterized as safe and painstaking rather than brilliant. In the preface the author makes the following statement: "It has not been thought necessary to write down to students of high-school age and training." This attitude will cripple the usefulness of the book in high-schools. It explains, however, the very evident fact that the work is above the average high-school pupil. One very valuable feature of the book is the abundance of illustrative material, which the author has collected from numerous sources and brought together in convenient form for reference. In this respect the work is unexcelled by any elementary text-book on geology which the writer has seen.

The text is divided into three portions of which the first, devoted to dynamical geology, is the most fully treated. On the whole this portion of the work is very satisfactory. Stress is laid upon the activity of the different dynamic agencies, especially as regards their preliminary work in the making of topography. Many examples of this work are cited; most of them are new to the general reader and they are to the point. Relatively small space is devoted to the second part of the book, that which treats of structural geology. The minute and gross structures of rocks are treated in separate chapters. The author fails to give the more modern views respecting the metamorphic rocks. No mention is made of the results obtained by such an investigator as Van Hise. The chapter on "Physiographic Structures," which concludes the second part of the book, is thoroughly good. The third and concluding part of the work takes up the subject of historical geology. In the first chapter the author considers the general principles of the subject, treating of such subjects as the following: fossilization, succession of living forms, life periods of species, geographical distributian, and the like. Then follow chapters on different periods of geological history. The general treatment of each period is the same; the name and subdivisions are considered first, then the general character of the period is noted, then follows a good description of the several types of life prominent in the period. Economic products are treated in some detail, and at intervals attention is called to the geography of the

growing continent. The closing chapter of this portion is, to the writer's mind, the most satisfying one in the book. It is a consideration of the Pleistocene period. Here the author is evidently in his element, and writes a thorough and up-to-date account of the ice age. The book is well illustrated; there are 294 pictures in the text of which about 100 are half-tones. The latter are well chosen and help to explain the text in a marked way. A teachers' guide accompanies the volume, one of its unique features is the presentation of outlines for field excursions from eighteen prominent American cities. This feature ought to be very helpful to teachers in the localities described.

G. L. COLLIE

BELOIT, WIS.

NEW PUBLICATIONS

EDUCATION, PSYCHOLOGY, AND PHILOSOPHY

Report of the Commissioner of Education for the Year 1898–9. Volume II. Size 9×6½ in.; 1269 pages. Washington: Government Printing Office.

A Classified Catalogue of Educational Books and Works in General Science. Size 8½×5½ in.; 84 pages. New York: Longmans, Green & Co.

ENGLISH LANGUAGE AND LITERATURE

Lights to Literature. By Grades — Book Eight. Edited by Charles W. French, Hyde Park High School, Chicago, and J. E. Adams, Goudy School, Chicago. Size 7½×5 in.; 272 pages. Chicago: Rand, McNally & Co.

Lights to Literature. By Grades — Book Seven. Edited by J. E. Adams and Charles W. French. Size 7½×5 in.; 266 pages. Chicago: Rand, McNally & Co.

Notes on Speech making. By Brander Matthews, Columbia University. Size 6½×4½ in.; 92 pages. New York: Longmans, Green & Co.

The Philosophy of the Short Story. By Brander Matthews, Columbia University. Size 6½×4½ in.; 83 pages. New York: Longmans, Green & Co.

Peter Cooper. By Rossiter W. Raymond. Riverside Biographical Series. Size 6½×4 in.; pp. xiii+109. Price, 50 cents. New York: Houghton, Mifflin & Co.

William Penn. By George Hodges. Riverside Biographical Series. Size 6½×4 in.; 140 pages. Price, 50 cents. New York: Houghton, Mifflin & Co.

Thomas Jefferson. By Henry Childs Merwin. Riverside Biographical Series. Size 6½×4 in.; 164 pages. Price, 50 cents. New York: Houghton, Mifflin & Co.

Selections from the Southern Poets. Edited by William Lander Weber, Emory College, Georgia. Size 5½×4 in.; pp. i+221. Price, 25 cents. New York: The Macmillan Company.

Chaucer. Edited in Critical Text with Grammatical Introduction. Notes and Glossary. By Mark H. Liddell. Size 7×5 in.; pp. cxxi+221. Price, 60 cents. New York: The Macmillan Company.

The Classical Heritage of the Middle Ages. By Henry Osborn Taylor. Size 7×5 in.; pp. xv+400. Price, $1.75. New York: The Macmillan Company.

A Two-Book Course in English. By Mary F. Hyde. Book I: Lessons in the Use of English. Cloth. 223 pages. Price, 35 cents. Book II: Practical English Grammar, with exercises in composition. Cloth. 331 pages. Price, 60 cents. Boston: D. C. Heath & Co.

A Modern Composition and Rhetoric. By Lewis Worthington Smith, Tabor College, Iowa, and James E. Thomas, Boston English High School. Size 8×5½ in.; pp. xviii+312. Boston: Benjamin H. Sanborn & Co.

CLASSICAL LANGUAGES AND LITERATURES

Elements of Latin. By William R. Harper and Isaac B. Burgess. Cloth, 12mo, 320 pages, with illustrations and colored map. Price, $1.00. American Book Company.

Juvenal. Edited by Henry Parks Wright, Yale College. Size 7×5 in.; pp. xliv+240. Price $1.35. Boston: Ginn & Co.

Teaching of Latin and Greek in the Secondary School. By Charles E. Bennett, A.B., and George P. Bristol, A.M. (American Teachers' Series.) Size 5¼×8 in.; 336 pages. Price, $1.50. New York: Longmans, Green & Co.

MODERN FOREIGN LANGUAGES AND LITERATURES

Le Tour de la France par deux Enfants. Par G. Bruno. Edited by C. Fontaine, High Schools of Washington, D. C. Heath's Modern Language Series. Size 6½×4½ in.; 211 pages. Boston: D. C. Heath & Co.

The French Subjunctive Mood. By Charles C. Clarke, Jr., Yale University. Heath's Modern Language Series. Size 7×5 in.; 66 pages. Boston: D. C. Heath & Co.

Histoires d'Animaux. Selected from A. Dumas. By T. H. Bertenshaw, London Schools. Size 7½×5 in.; 184 pages. Price, 60 cents. New York: Longmans, Green & Co.

Materials for German Composition. Based on "Der Schwiegersohn." By L. E. Horning, Victoria University, Toronto. Paper cover; 30 pages. Price, 12 cents. Boston: D. C. Heath & Co.

Harold. Von Ernst von Wildenbruch. Edited by Charles A. Eggert. Heath's Modern Language Series. Size 6½×4½ in.; pp. ii+145. Price, 35 cents. Boston: D. C. Heath & Co.

Soll und Haben. Von Gustav Freytag. Edited by George T. Files, Bowdoin College. Heath's Modern Language Series. Size 7×5 in.; 253 pages. Price, 65 cents. Boston: D. C. Heath & Co.

Inkognito. By Baldwin Groller and Cand. phil. Lauschmann, by P. Albersdorf. Edited by Max Lentz of the Paterson Military School. Cloth, 12mo, 118 pages. Price, 30 cents. American Book Company.

Heyse's Anfang und Ende. Edited by Max Lentz, Paterson Military School. Cloth, 12mo, 105 pages. Price, 30 cents. American Book Company.

HISTORY, POLITICS, AND ECONOMICS

Outlines of Roman History. By William C. Morey, University of Rochester. Cloth, 12mo, 348 pages. Price, $1.00. American Book Company. Manual of the Constitution of the United States. By Israel Ward Andrews. Revised by Homer Morris. Cloth. 12mo, 431 pages. American Book Company.

The Queens of England. By Mary Howitt, Revised by Geneva Amstrong. Illustrated. Size 7½×5½ in.; 549 pages. Chicago: B. S. Wasson & Co.

SCIENCE

The Arithmetic Primer. Designed to Precede any Series of Arithmetics. By Frank H. Hall. Size 7½×5½ in.; pp. xx+108. Chicago: Werner School Book Company.

The Romance of the Earth. By A. W. Bickerton, New Zealand University. Size 7×5 in.; 181 pages. Price, 80 cents. New York: The Macmillan Company.

Non-Euclidean Geometry. By Henry Parker Manning, Brown University. Size 7½×5 in.; 95 pages. Price, 80 cents. Boston: Ginn & Co.

NOTES ON BOOKS

WHEN in Charlottesville, Va., last autumn, we met a down-east Yankee who said that he had come all this way to see where Democrats were made. We commend to his notice the recently published life of *Thomas Jefferson*, by Thomas E. Watson, who in his inimitable style tells the story of this great man. His failings and his virtues are alike exposed, there is sometimes a decided bias in the estimate of some of Jefferson's contemporaries, but the tale is told simply and in a straightforward manner.

This series of *Beacon Biographies* promises to be almost indispensable if we may judge from this and the life of *Ulysses S. Grant* which was recently reviewed in our columns. Small, Maynard & Company, of Boston, are the publishers — price 75 cents.

WE are charmed with Mr. Higginson's reminiscences of *Old Cambridge*, in the series known as National Studies in American Letters. The reputation of this volume has been well sustained by Meredith Nicholson in *The Hoosiers*. As its title indicates, its subject is Indiana, and the forces that have been at work in it — the literary, political, educational, religious, and social — the forces that have made it such an interesting state for the student in any of these lines of activity. The State of Eggleston and Riley, of Owen and Maclure, of Lew Wallace of *Ben Hur* fame, and of Thompson with his recent charming novel, affords a great opportunity for a writer, and Mr. Nicholson has risen to his privilege. His work is interesting, is well balanced and discriminating, and bears evidences of well-organized thought on the subject. The chapter on the experiment in socialism at New Harmony has an especial interest for those of us who are students of education, for the author points out that Robert Owen, the founder of this colony, was a student of the great Pestalozzi, and one of his co-workers was Joseph Neef, who had been a teacher in Pestalozzi's school. The Macmillan Company publishes this work in the series above mentioned. Price, $1.25.

The Point of Contact in Teaching was written originally in the interests of better educational standards in the Sunday-school work of this country. This certainly is a field that needs special attention. The needs are great and the rewards for patient endeavor ought to be correspondingly great. Mr. Patterson Du Bois, the author of this interesting, inspiring, and suggestive book has made the start in exactly the right way. He has given us no learned treatise, but a simple, reasonable, and readable statement of the facts as he sees them, the need for a change and the best method of obtaining the desirable change. Its field is not restricted to Sunday-school work. It has a distinct place in the general educational literature of the day, and cannot be read by any teacher without good effects upon him and upon his teaching. A certain weakness in it is the frequent citations from men whom the author quotes as authorities on the subject. We are quite willing to read what Mr. Du Bois has to say and consider it carefully and see whether it will help us in our work; he says it will, and the truth does not become more so by citing various men's opinions in support of it. This is the fourth edition, and is published by Dodd, Mead & Co., of New York.

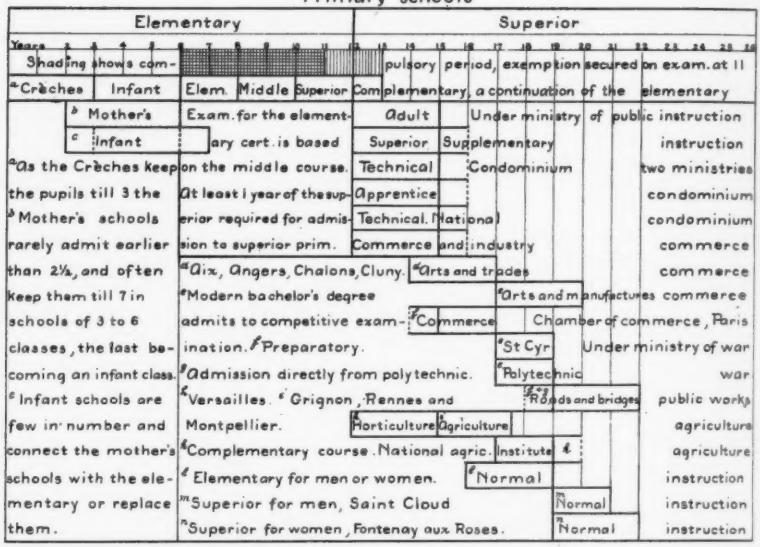
Comfort and Exercise is the striking title of a very interesting work by Mary Perry King. She first tells us what comfort is, then discusses it in daily life, in education, and in dress; the exercise that can be rightly termed educational is then dealt with, and the last chapter gives us a picture of an ideal gymnasium. Most books dealing with physical exercise are technical and have but little interest for the reader who wants to know what relation this has to life rather than how to manipulate certain kinds of weights and clubs. This is by all odds the most suggestive book on the subject of physical exercise. It is sound educationally and essentially reasonable. It ought to be in every high-school library, so that the girls and boys may have the benefit of its wisdom. They are just at the age when they need such advice as is in this book. Again, our teachers are too prone to lead a sedentary life. They live too much indoors, and for them this book has a distinct value. Space will hardly allow of citations, but we feel like noticing one sentence: "The shortcoming of the whole

military idea of national training was demonstrated in the Boer war, where a handful of self-reliant men, accustomed to individual action, were always found a match for many times their number of regular troops trained in a rigid averaging system. The British colonial troops (Canadians and Australasians) were found invaluable for precisely the same reason: they used their heads as well as their bodies." Small, Maynard & Co., of Boston, publish this in a very attractive form. Price, $1.

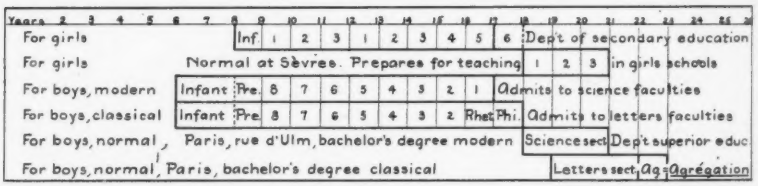
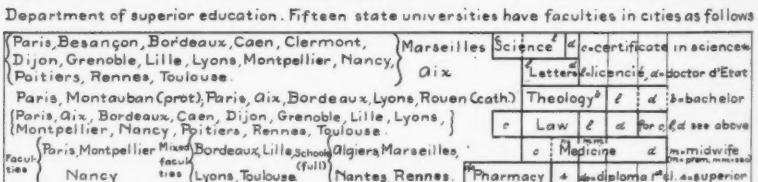
IT is not often nowadays that one has the good fortune to "discover" a great educator, especially if this person discovered has been before the world for many years in another guise. Yet this is what Mr. James L. Hughes of Toronto, Canada, has done in his recently published work *Dickens as an Educator*. We have laughed over Mr. Pickwick, and Mr. Pecksniff; we have wept over little Nell, we have grown indignant over Nicholas Nickleby and the school at Dotheboy's Hall and yet we have given little thought to the consideration that there might be some *educational* lessons for us in what Dickens was portraying. We recognized the social and legal exposures that he made but thought little of the educational — unless perchance we might have thought it was sometimes overdone. Mr. Hughes has read Dickens to gain educational lessons and there will surely now be a re-reading of Dickens from this standpoint. The great requisite to understand this book is to know Dickens thoroughly. The extracts used to prove certain points which the author has decided upon as being correlated enough to form a chapter, mean but little when taken out of their connection with the story of which they are a part. This is the weak part of the book from one standpoint, and yet it may be a strong part if it will induce teachers to read the works of Dickens. Another great requisite is to know Froebel—for Dickens knew him and his work. Mr. Hughes is saturated with him and indeed one of his great efforts is to thoroughly connect Froebel and Dickens. After reading the preface the reader will discover that Mr. Hughes is "a man with a mission," that this subject has been on his mind for some time and that he is bound to prove everything that can possibly be proved toward making Dickens the greatest educator of England. That he has partially succeeded, there is little doubt, but that he has been too anxious to accomplish this will be suggested by the plethora of detail in many instances. The best result of this book will be to stimulate a reading of the works of this great man to which Mr. Hughes has given so much study. This is published by Appleton & Company in the *International Education Series* and will be an interesting book for discussion at teachers' clubs. Price $1.50.

The French system of education as exemplified in Paris

Primary schools


Elementary
Superior
Years 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
Shading shows compulsory period, exemption secured on exam. at 11
[a] Crèches
Infant
Elem.
Middle
Superior
Complementary, a continuation of the elementary
[b] Mother's
[c] Infant
Exam. for the elementary cert. is based on the middle course. At least 1 year of the superior required for admission to superior prim.
Adult
Under ministry of public instruction
Superior
Supplementary
instruction
Technical
Condominium
two ministries
Apprentice
condominium
Technical. National
condominium
Commerce and industry
commerce
[a] Aix, Angers, Chalons, Cluny.
[e] Arts and trades
commerce
[e] Arts and manufactures
commerce
[a] As the Crèches keep the pupils till 3 the [b] Mother's schools rarely admit earlier than 2½, and often keep them till 7 in schools of 3 to 6 classes, the last becoming an infant class. [c] Infant schools are few in number and connect the mother's schools with the elementary or replace them.
[e] Modern bachelor's degree admits to competitive examination. [f] Preparatory.
[f] Commerce
Chamber of commerce, Paris
[g] St Cyr
Under ministry of war
[g] Admission directly from polytechnic.
[g] Polytechnic
war
[f] Versailles. [e] Grignon, Rennes and Montpellier.
[f] [g] Roads and bridges
public works
[f] Horticulture
[f] Agriculture
agriculture
[f] Complementary course. National agric. Institute
[f]
agriculture
[f] Elementary for men or women.
[g] Normal
instruction
[m] Superior for men, Saint Cloud
[m] Normal
instruction
[n] Superior for women, Fontenay aux Roses.
[n] Normal
instruction

Secondary. Under ministry of public instruction and fine arts. Superior


Years 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
For girls
Inf 1 2 3 1 2 3 4 5 6
Dep't of secondary education
For girls
Normal at Sèvres. Prepares for teaching
1 2 3
in girls schools
For boys, modern
Infant Pre. 8 7 6 5 4 3 2 1
Admits to science faculties
For boys, classical
Infant Pre. 8 7 6 5 4 3 2 Rhet. Phi.
Admits to letters faculties
For boys, normal, Paris, rue d'Ulm, bachelor's degree modern
Science sect.
Dep't superior educ
For boys, normal, Paris, bachelor's degree classical
Letters sect. Ag = Agrégation

Department of superior education. Fifteen state universities have faculties in cities as follows